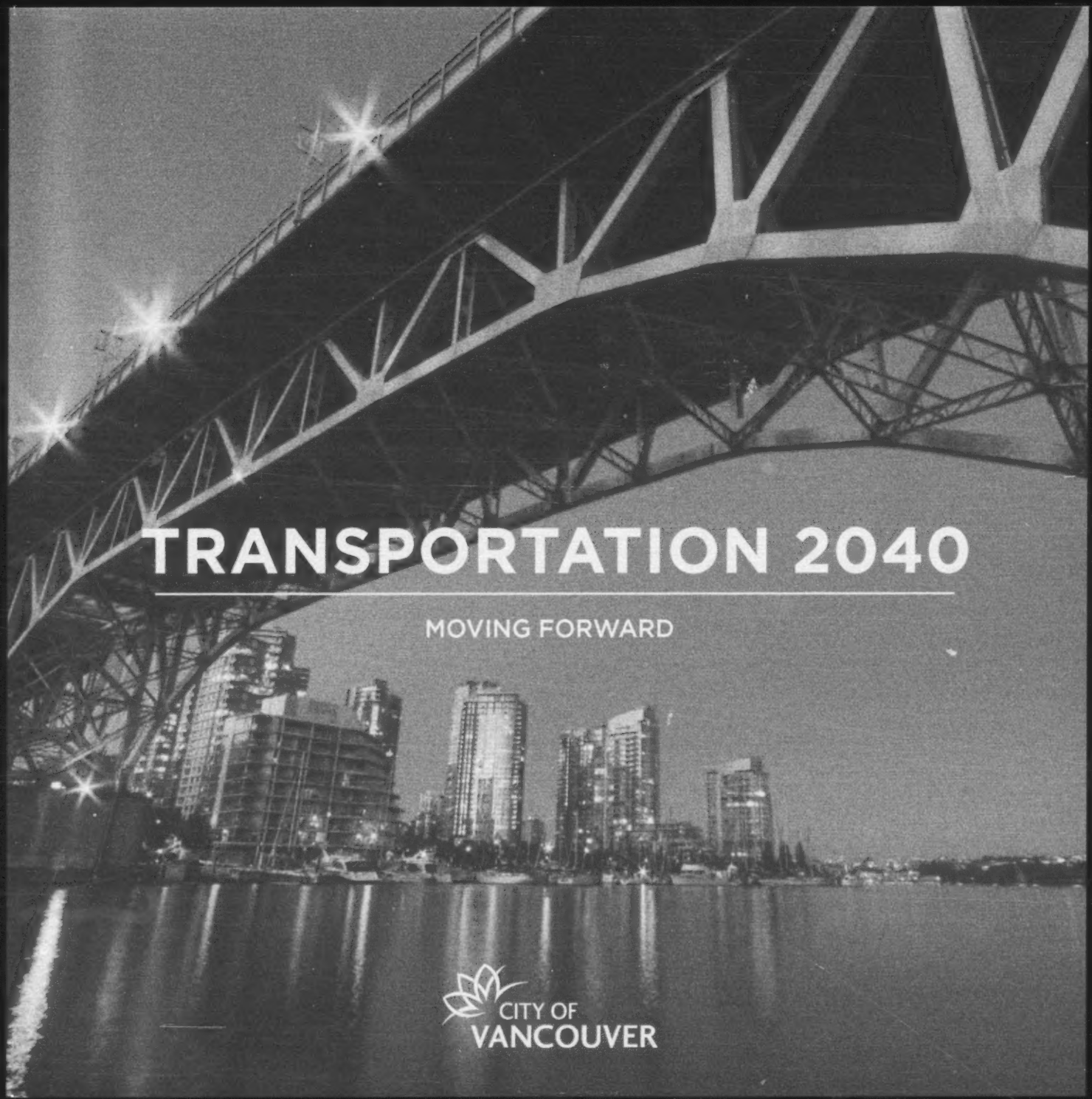
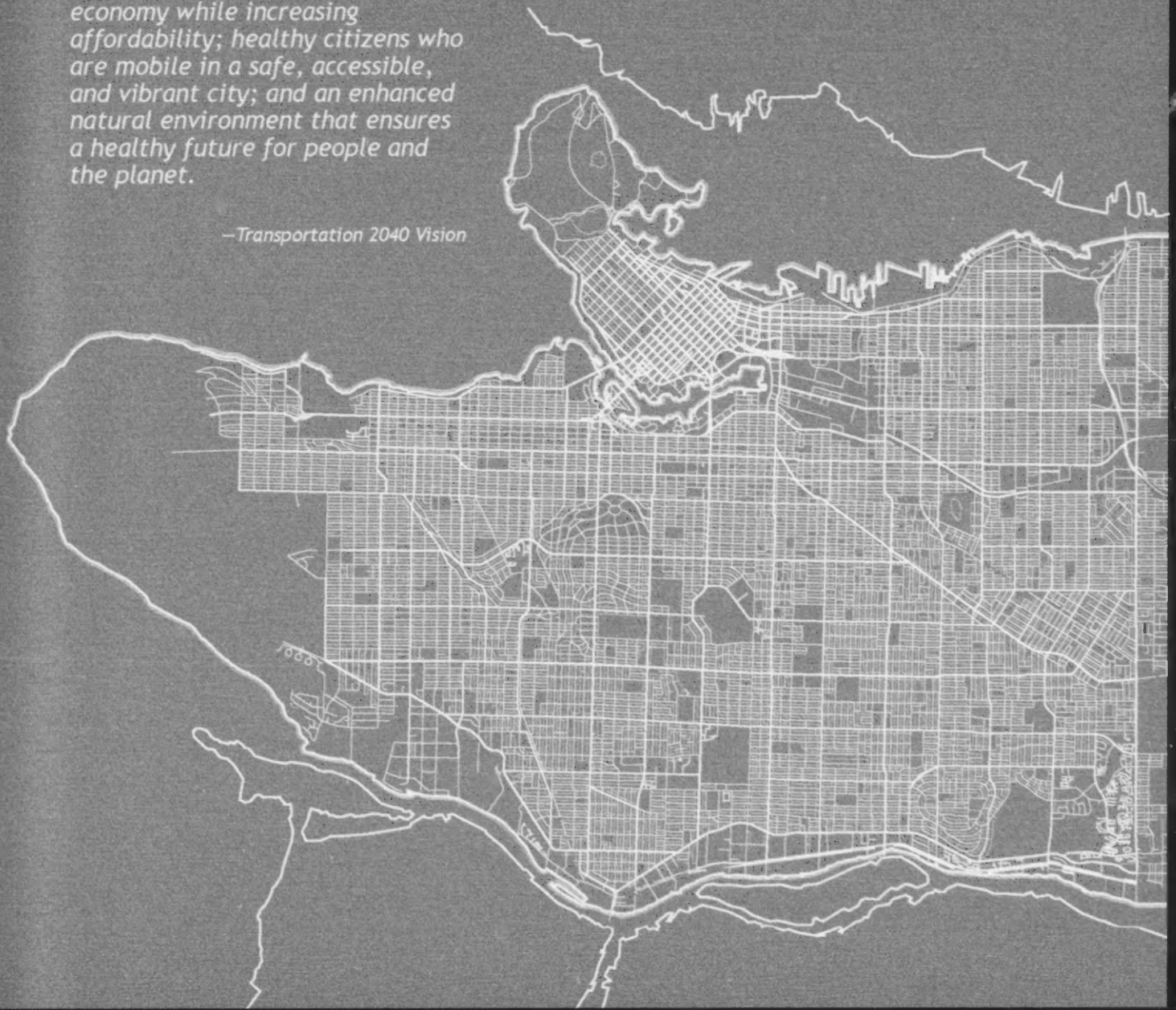

TRANSPORTATION 2040
MOVING FORWARD
CITY OF
VANCOUVER

By 2040, we envision a city with a smart and efficient transportation system that supports a thriving economy while increasing affordability; healthy citizens who are mobile in a safe, accessible, and vibrant city; and an enhanced natural environment that ensures a healthy future for people and the planet.

—Transportation 2040 Vision



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SETTING THE STAGE

OVERVIEW

Our transportation choices shape our city and ourselves. The ease with which we can move around determines how we spend our time each day, where we can go, who we can see, and what we can do. When travelling is easy, we can do and see more, or simply spend more time with the people and activities important to us. A livable city must therefore have a transportation system that meets its residents' needs.

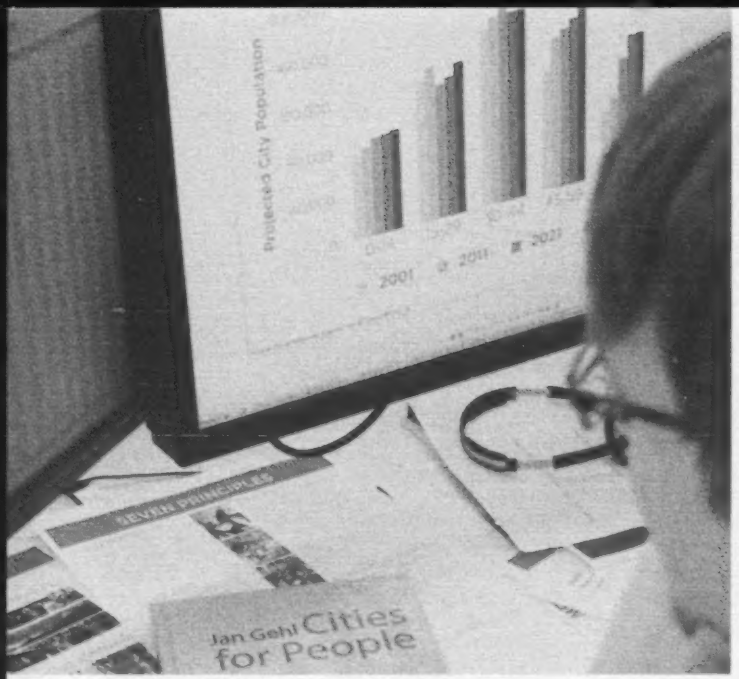
Vancouver is a multi-modal city. We choose the travel methods that meet our needs for a particular trip—sometimes riding transit or driving, sometimes walking or cycling, and often using more than one mode within a single trip. Having transportation options that are easy, accessible, and flexible allows people to save time and money while increasing their health and well-being.

Transportation is not only about moving people. Vancouver's economy relies on the local and regional movement of goods and services, requiring efficient truck routes and loading areas, and connections to ship, rail, and air infrastructure. The movement of emergency response vehicles is an important service relied upon by everyone. These aspects of the transportation system must be integrated with people movement to create a complete and well-running system.

Whether moving people, goods, or services, our transportation system is becoming increasingly environmentally sustainable. We're greening the system by reducing our collective reliance on vehicles that use non-renewable fuels and pollute the air. Instead, we're focusing on supporting travel modes that use renewable fuels and that move more people with less pollution—like electric cars, transit, and active transportation modes such as walking and cycling. This includes supporting low-impact local goods movement and delivery services.

Transportation 2040 is a long-term strategic plan for the city that will help guide transportation and land use decisions and public investments for the years ahead. It provides a blueprint for us to move forward, build upon our past successes, and rise to meet new and emerging challenges.

The plan sets long-term targets and includes both high-level policies and specific actions to achieve the vision. Transportation 2040 builds upon the Greenest City 2020 Action Plan, a wide-ranging strategy to make Vancouver the greenest city in the world based on 10 goal areas—including green transportation. Transportation 2040 also supports numerous other City, regional, and provincial policies.

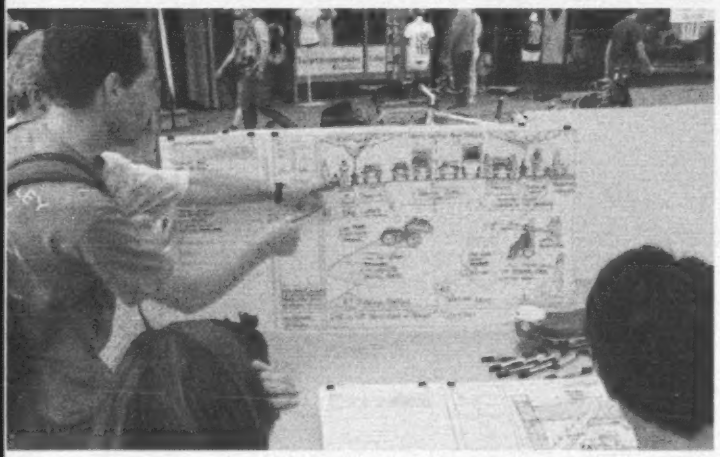


CITY'S ROLE

The City has a number of ways in which we can influence travel behaviour and effect change in transportation. Transportation is complex, as issues often extend beyond municipal or even regional boundaries, and many players are involved through overlapping jurisdictions. Some things are largely within the City's control, such as our public rights-of-way, street infrastructure, land use, and much of the built environment. Other things fall under regional, provincial, or federal jurisdiction—such as transit, ports, and regional infrastructure planning. In this latter case, the City is a partner, stakeholder, and advocate for local transportation issues.

The City's role in transportation includes:

- Building and maintaining City-owned public rights-of-way and infrastructure, including streets, sidewalks, and public spaces
- Guiding development on private property through land use and urban design policies and guidelines
- Managing how our streets are used through rules, regulations, and pricing
- Advocating and partnering with outside agencies on things beyond our jurisdiction
- Educating and empowering citizens to make sustainable transportation choices
- Providing leadership, both locally and around the world



CONSULTATION AND PLAN DEVELOPMENT

The directions contained in this plan are based upon best practices from around the world as well as local expertise and public input. Key inputs include:

- Broad public consultation in 2011 focused on ideas generation, with over 8,000 people participating at events including town hall meetings, artist-facilitated co-design workshops, surveys, and online discussion boards
- Detailed public review of draft directions in 2012, with over 10,000 people participating at public events, open houses, and festivals, as well as through social media and 944 responses to an online questionnaire
- Ongoing engagement with over 50 stakeholder groups, including representatives from other government agencies, emergency services, health care and social service providers, industry leaders, non-profit organizations, and local business groups
- A peer review by leading transportation experts from around the world
- Approved high-level direction and detailed ideas generated through the Greenest City planning process, which were the result of extensive public engagement in 2010

RISING TO THE CHALLENGES

Our world is constantly changing. Vancouver faces a number of challenges—some old, some new, some global in nature, and others unique to our region. With commitment and creativity we can face our transportation future head-on by supporting our economy, protecting the environment, and improving quality of life for everyone.

A GROWING CITY WITH LIMITED ROAD SPACE

The city is growing. Over the next 30 years, we're expecting about 130,000 new residents and close to 90,000 new jobs, bringing more trips and more life to the city. The street network is largely built out, leaving few opportunities for building new roads, but by using our existing streets more efficiently we can move more people in the limited space we have.

DEMAND FOR TRANSIT

Vancouver has one of the busiest transit systems in North America. Unlike in most cities, transit demand far exceeds capacity, but ongoing funding challenges have limited service improvements. If stable, long-term funding can be found, strategic investments will increase transit capacity, helping us meet existing and future demand, and enabling us to reach City, regional, and provincial transportation targets.

COSTS OF SEDENTARY LIFESTYLES

The financial burden of physical inactivity is substantial, costing the provincial health care system more than $570 million in 2005. About 45% of British Columbians are overweight or obese, and the rate of obesity in BC children has nearly tripled in the past 25 years. We can help reverse this trend by making active transportation choices like walking and cycling more convenient and comfortable, so that physical activity becomes part of the daily rhythm of life.

HIGH COST OF HOUSING

Vancouver is an expensive city and the high cost of living is a concern for many residents. Although housing costs are usually viewed as the main problem, transportation is a big part of the solution. We can help residents save thousands of dollars each year by reducing the need to drive or own a car. Complete communities—where homes, workplaces, and schools are near to each other—and inexpensive transportation options help to reduce household costs.

AGING POPULATION

In the next 30 years, the number of Vancouver residents aged 60 and over will more than double. An aging population means changes in travel patterns and more people with physical challenges getting around our city. By building streets and public spaces with accessibility in mind, and providing transportation options that work for all people, we can ensure a future that allows everyone to meet their daily needs and participate in public life.

RISING FUEL PRICES

Fossil fuel prices have increased significantly in the past decade, and will continue to rise as global oil production peaks. By prioritizing sustainable transportation options, we can reduce oil dependency and help our residents, businesses, and local industry survive and even thrive in a post-carbon world.

CLIMATE CHANGE

Fossil fuels release greenhouse gases and other pollutants when burned for energy. Climate change is already having severe impacts around the world, and conditions will worsen unless greenhouse gas emissions are sharply reduced. In the City of Vancouver, vehicles account for over 30% of greenhouse gas emissions. We can make a big difference by prioritizing transportation choices that don't use fossil fuels or use them more efficiently.

GROWING DOWNTOWN

Vancouver's downtown is home to more people, jobs, and activity than ever, and it plays a critical role as a cultural and economic centre for the city, region, and province. A vibrant, accessible, and walkable downtown makes Vancouver an appealing destination for residents, employees, and visitors alike. By offering appealing public spaces on our streets, we can strengthen the downtown's role as a gathering place for the city and region. By providing a range of mobility options on our limited road space, we can also increase our ability to move people to, from, and within downtown.

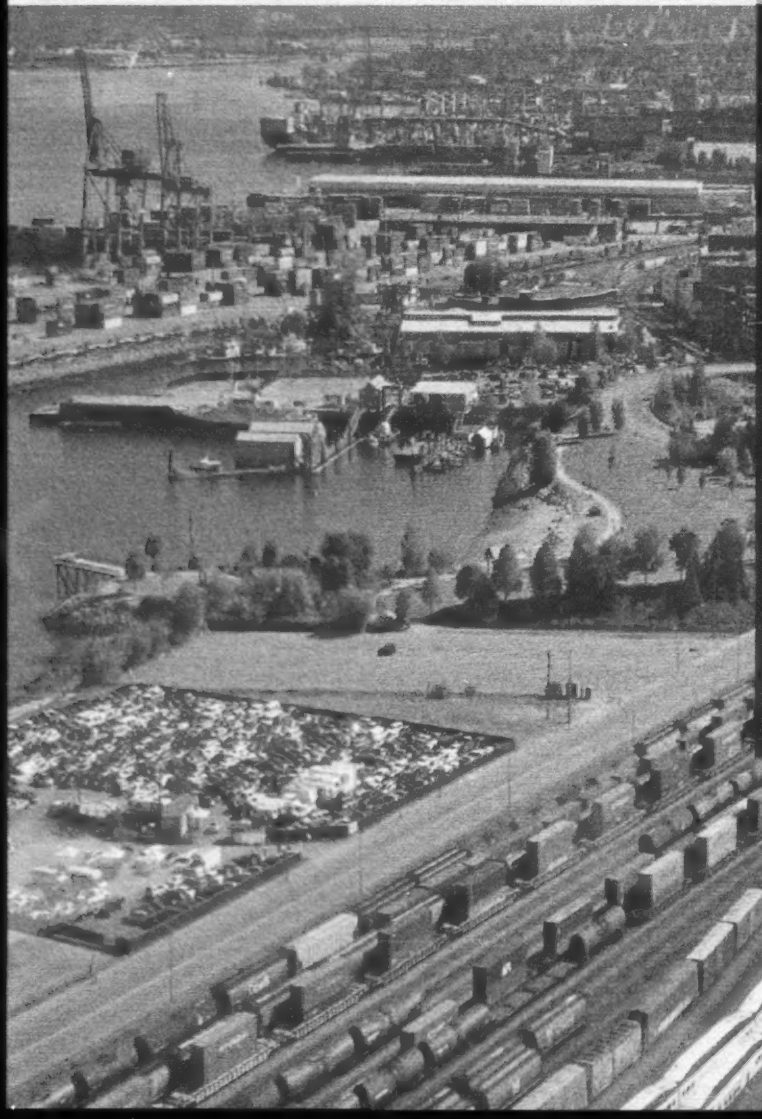
GREEN TRANSPORTATION

The goals of this plan align with the transportation-related goals found in the City's Greenest City 2020 Action Plan:

- Make the majority of trips on foot, bike, and transit
- Eliminate dependence on fossil fuels
- Breathe the cleanest air of any major city in the world

GOALS

This plan is about more than just mobility. The transportation vision and goals embrace the three pillars of sustainability: people, the environment, and the economy. The goals begin to describe how we will make our vision for Vancouver become a reality.



ECONOMY

VISION: A smart and efficient transportation system that supports a thriving economy while increasing affordability.

Our goals to support this economic vision are to:

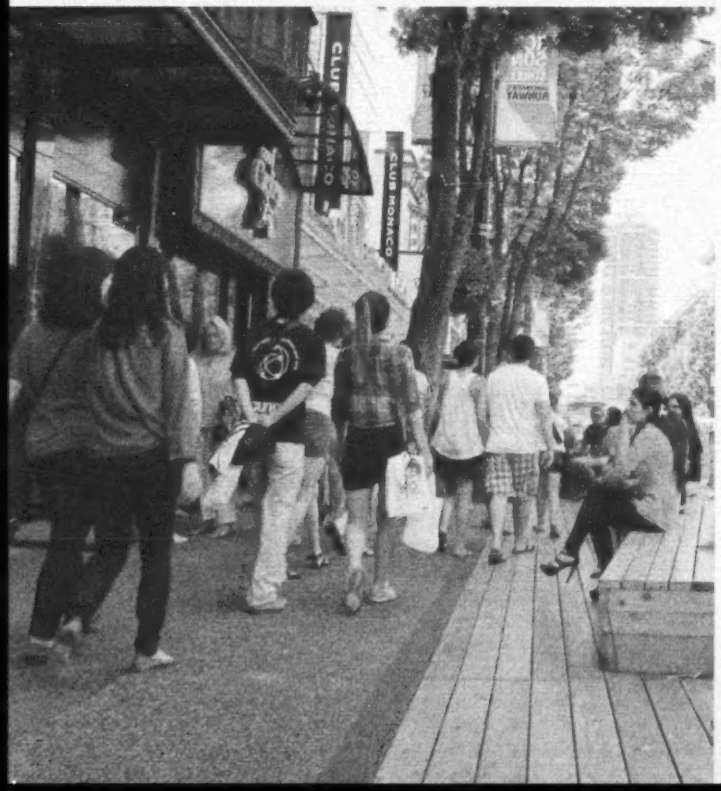
- Enable the exchange of goods, services, and ideas throughout the city and region by making better use of our limited road capacity and transportation networks
- Foster a quality of life that retains and attracts businesses and employees while enhancing the city's global image
- Provide inexpensive transportation options that make it easier for households to go car-lite or car-free, resulting in more money that can be spent on housing or in the local economy
- Support the city's continued role as an international tourist destination, major port, and Asia-Pacific gateway

PEOPLE

VISION: Healthy citizens who are mobile in a safe, accessible, and vibrant city.

Our goals to support this social vision are to:

- Facilitate and encourage active lifestyles while improving air quality
- Support vibrant public spaces that foster a culture of walking, cycling, and social interaction
- Work to eliminate traffic-related fatalities, and address concerns of personal security
- Enable people of all ages and abilities to get to where they need to go in comfort



ENVIRONMENT

VISION: An enhanced natural environment that ensures a healthy future for people and the planet.

Our goals to support this environmental vision are to:

- Keep the air we breathe clean and reduce greenhouse gases and other emissions
- Support compact community development, helping to preserve natural habitat and agricultural land throughout the region
- Improve access to open spaces and fresh local produce
- Be resilient in the face of climate change and increasing fuel prices, helping residents and local businesses survive and even thrive in a post-carbon era

TARGETS

Setting targets and measuring progress is a way to help us know if we are on the right track to meeting our goals. Targets also inspire action and ensure accountability.

The targets in this plan build upon recent trends. Over the past 15 years, the number of people living, working, and travelling in the city has grown, and there are more trips than ever. Despite this, the total number of cars entering the city and downtown has declined. The overall growth in trips has been accommodated with walking, cycling, and transit.

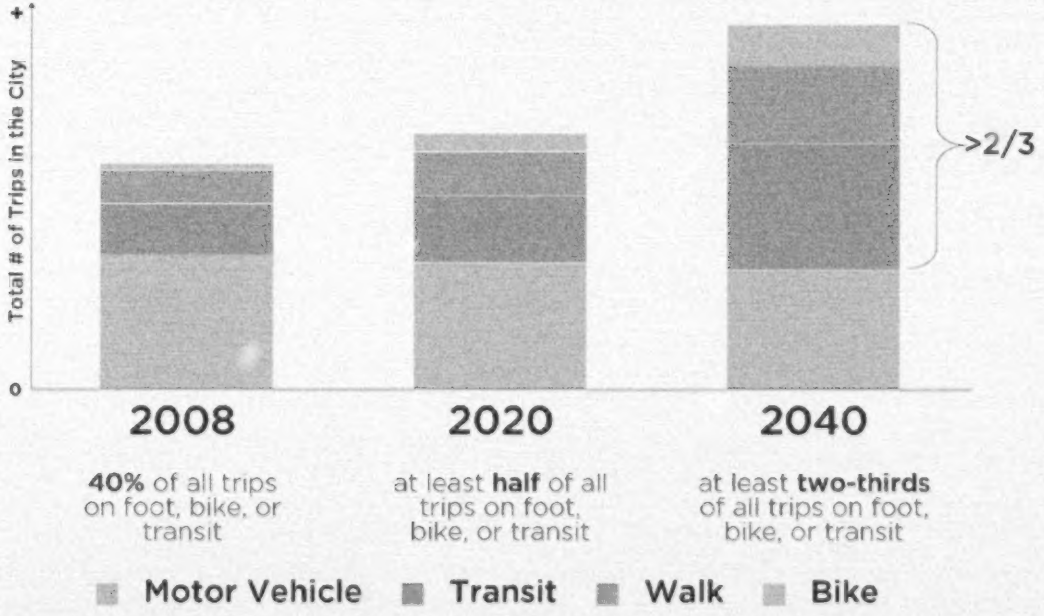
TARGET 1: MODE SHARE

By 2040, at least two-thirds of all trips will be made by foot, bike, and transit. The total number of trips by sustainable modes will grow significantly, while motor vehicle volumes will slightly decline.

Mode share refers to the proportion of trips made by each method of travel. It is one of the most common ways of measuring travel behaviour and setting long-term targets, and it provides a good understanding of how people get around. The mode share targets in this plan are a measure of all person trips beginning in the city, for any purpose.

Transportation 2040 affirms the Greenest City target to make at least half of all trips by foot, bike, and transit by 2020, and sets a 2040 target to make at least two-thirds of all trips by these modes. The overall size of the bar grows to reflect the increasing number of trips that will occur with future population and job growth.

Mode Share Target for 2020 and 2040



For all trips originating in the City of Vancouver.
Source: Data and analysis based on TransLink Trip Diaries. Opinions expressed do not necessarily represent the views of TransLink.

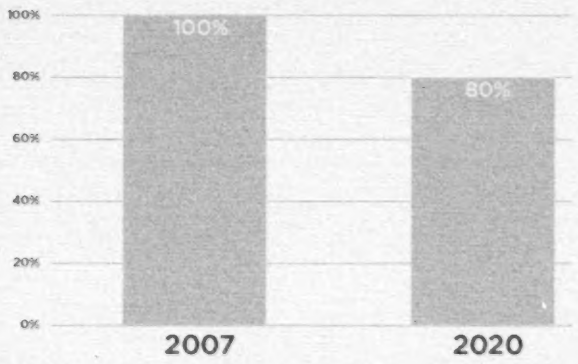
TARGET 2: DISTANCE DRIVEN

Transportation 2040 supports the Greenest City 2020 target for reducing distance driven. By 2020, the average distance driven per resident will decrease by 20% from 2007 levels.

A target for distance driven (vehicle kilometres travelled, or VKT) is important because it helps provide a measure of fuel consumption and emissions, which impact air quality and climate change.

To reduce distance driven, residents, businesses, and visitors must be provided with sustainable mode choices that are easy, accessible, fast, and flexible.

Distance Driven Per Resident



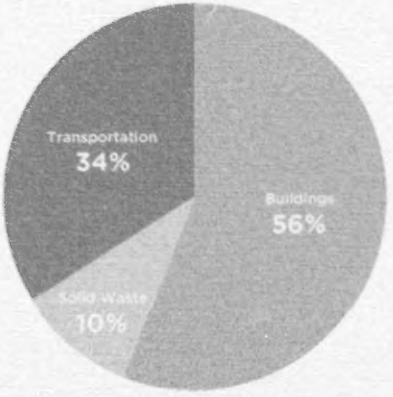
Distance driven = vehicle kilometres travelled. 2007 baseline to be determined.

TRANSPORTATION EMISSIONS

The City of Vancouver's 2011 Emissions Inventory shows that about a third of Vancouver's community-based greenhouse gas emissions come from transportation.

Reducing the amount we drive will decrease transportation emissions, ease traffic conditions, and free up road space for other uses. The Greenest City 2020 Action Plan has set a target to reduce community-based greenhouse gas emissions by 33% from 2007 levels.

2011 GHG Emissions Inventory



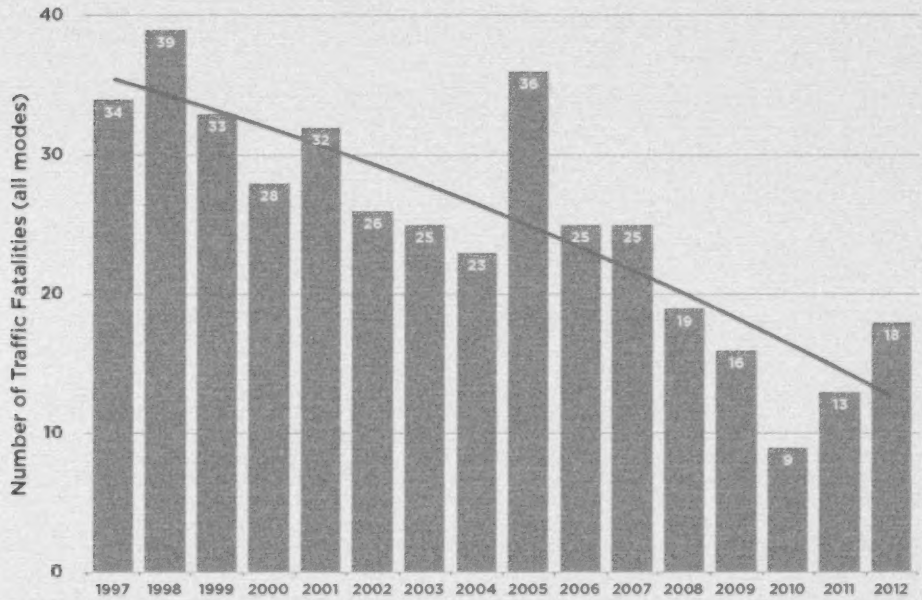
Source: City of Vancouver

TARGET 3: ZERO TRAFFIC-RELATED FATALITIES

Vancouver's ultimate safety goal is to eliminate all fatalities from the transportation system. We will work closely with our partners to examine the location and contributing factors of any collisions resulting in death, and identify appropriate steps to take in response—whether they are engineering, enforcement, or education interventions.

A special emphasis will be placed on safety for vulnerable road users, such as people using active transportation modes and at-risk groups like children, seniors, and those with mobility challenges.

Traffic Fatalities in Decline



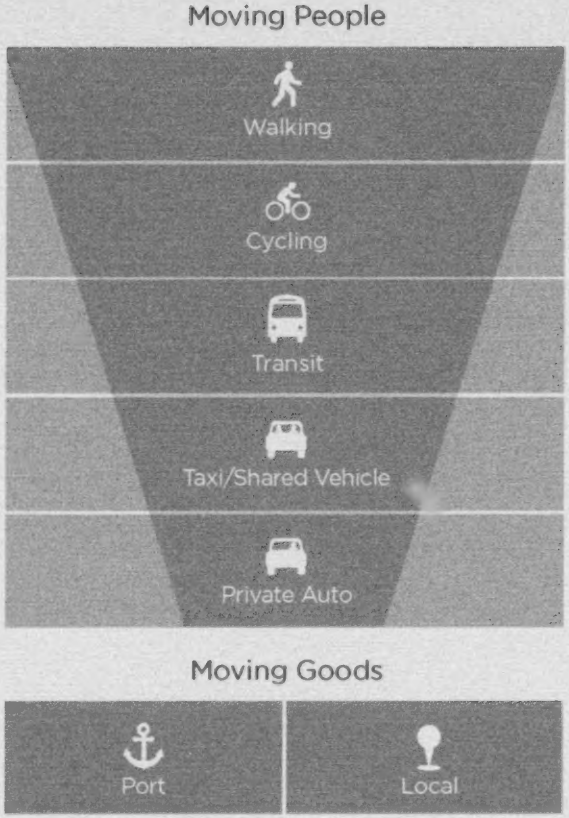
Source: Vancouver Police Department

MOVING PEOPLE

The City's transportation decisions generally reflect a hierarchy of transportation modes, with walking as the top priority. When decisions about moving people are being made, the needs and safety of each group of road users are considered in priority order. From highest priority to lowest priority, walking is followed by cycling, then transit, taxis and shared vehicles, and finally the private car. Each mode and user group is given due consideration.

Policy and design changes must not make conditions worse for the most vulnerable road users, such as people travelling by foot, bicycle, and motorcycle. Each time a new roadway is designed or an existing one altered, opportunities for improving walking and cycling will be reviewed. Separated cycling facilities will be included in all new major roadway projects.

This is a general approach and does not mean that users at the top of the list will always receive the most beneficial treatment on every street. In urban environments there is not always enough space to provide the ideal facilities for all users' needs, and compromises must sometimes be made. When modes further down on the list are prioritized, the reasons for this approach will be explained and improvements to alternative routes considered.



MOVING GOODS

The efficient movement of goods and services will continue to be a high priority for the City. Long-distance goods movement is important to provincial and national economies, and to Vancouver's role as a port city. Smaller-scale local movement is essential to a thriving economy and high quality of life.

Emergency services require special consideration. Police, fire, ambulance, and other emergency service providers must be able to reach their destinations quickly.

LAND USE

Utilize land use to support shorter trips and sustainable transportation choices.

BACKGROUND

It is often said that the best transportation plan is a good land use plan. Land use and the built environment influence travel behaviour in a number of ways, often referred to as the "Five Ds of the Built Environment":

1. Destinations – locating major destinations and centres at rapid transit stations or along corridors makes them easy to serve efficiently with frequent transit

2. Distance – a well-connected, fine-grain pedestrian network enables shorter, more direct walking connections and is easier to serve cost-effectively with transit

3. Density – higher levels of residential and employment density support more local amenities within walking and cycling distance, and justify high levels of transit service

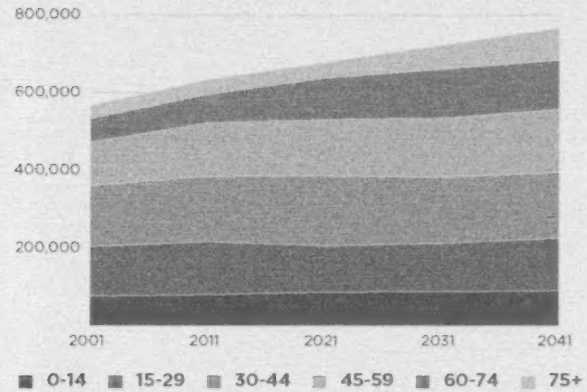
4. Diversity – a diverse mix of land uses and housing types makes it easier to live, work, shop, and play without having to travel far

5. Design – well-designed buildings and public realm create interesting places where people feel safe to walk or cycle

Good land use decisions have been and will continue to be a major part of Vancouver's success with transportation. Over the years, we have strived to build complete communities that bring people closer to their daily destinations and make walking the easiest and most convenient option for many trips. We design buildings that put "eyes on the street" to foster feelings of safety, and locate density to support efficient transit service.

TRENDS AND TARGETS

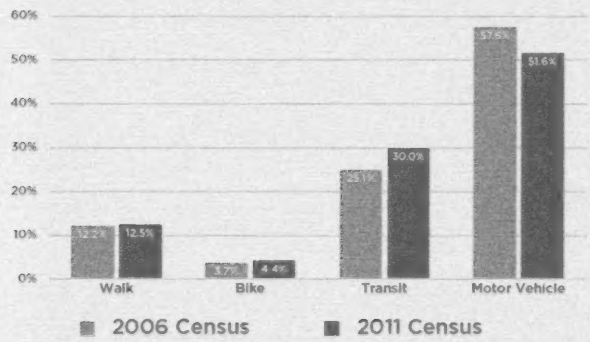
Projected Population for City of Vancouver



Source: City of Vancouver, adapted from BC Stats PEOPLE 36

By 2041, Vancouver is expected to grow by about 130,000 residents and close to 90,000 jobs. More people and more jobs means adding more trips to the transportation network, but the amount of road space remains the same. Commute mode share will be key to accommodating more trips. We can encourage trips made by walking, cycling, and transit through appropriate land use decisions.

Changes in Commute Mode Share



Source: Census Canada. This chart provides a summary of travel to work only.

POLICY BASIS

MAJOR TRIP GENERATORS NEAR TRANSIT
Schools, job centres, shopping districts, and other popular destinations generate a lot of trips. Locating these major trip generators beside rapid transit stations or along main transit corridors makes for a more efficient transit system that is both cheaper to operate and more convenient for riders. The plan generally supports higher-intensity housing and jobs in areas well served by transit, yet also recognizes the importance of local context in making these decisions.

COMPLETE COMMUNITIES
A diverse mix of land uses brings people and their daily destinations closer together, reducing the distances travelled and supporting sustainable and affordable transportation choices like walking and cycling.

Living in complete communities with great transit service can go a long way toward increasing housing affordability, since households are less dependent on driving. Residents who forgo car ownership can apply the resulting savings—which can amount to $10,000 or more per year—to housing or other expenses. The savings increase further when residents are given the choice to not purchase parking spaces they do not need.

BUILDINGS THAT SUPPORT A PEOPLE-FRIENDLY ENVIRONMENT

Well-designed buildings help to increase the safety and attractiveness of the street environment, and can strongly influence how someone chooses to get around. Appropriately scaled buildings maintain visual interest for people on foot or bike who are travelling at relatively slow speeds. Building fronts with many windows and doors put "eyes on the street"—where occupants can see what is happening outside—which increases feelings of personal security for those who are travelling by.

The City will continue to implement design guidelines for new buildings that support an interesting streetscape for people travelling on foot. To minimize conflicts with cars, driveways will be located in laneways and away from bicycle routes and pedestrian paths, wherever possible.

LAND USE DIRECTIONS

Transportation 2040 is not a detailed land use plan. However, the plan contains high-level directions that are intended to help guide future land use plans and decisions to support sustainable transportation choices.

L1 Land Use

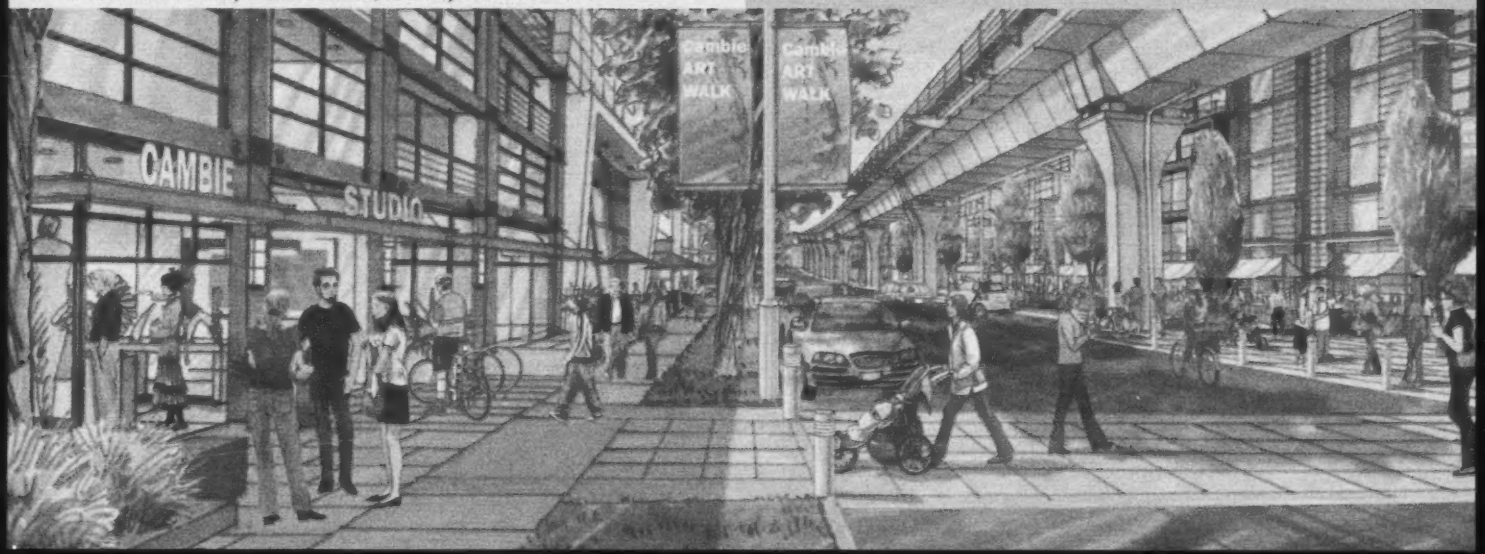
- L1.1 Prioritize and encourage a dense and diverse mix of services, amenities, jobs, and housing types in areas well served by frequent, high-capacity transit
- L1.2 Locate major trip generators near rapid transit stations or along transit corridors
- L1.3 Design buildings to contribute to a public realm that feels interesting and safe

PUBLIC COMMENT

"I love living in a neighbourhood where everything is so close. I can do most of my errands just by walking."

—public engagement participant

Artist illustration of Cambie Street, south of Marine Drive.

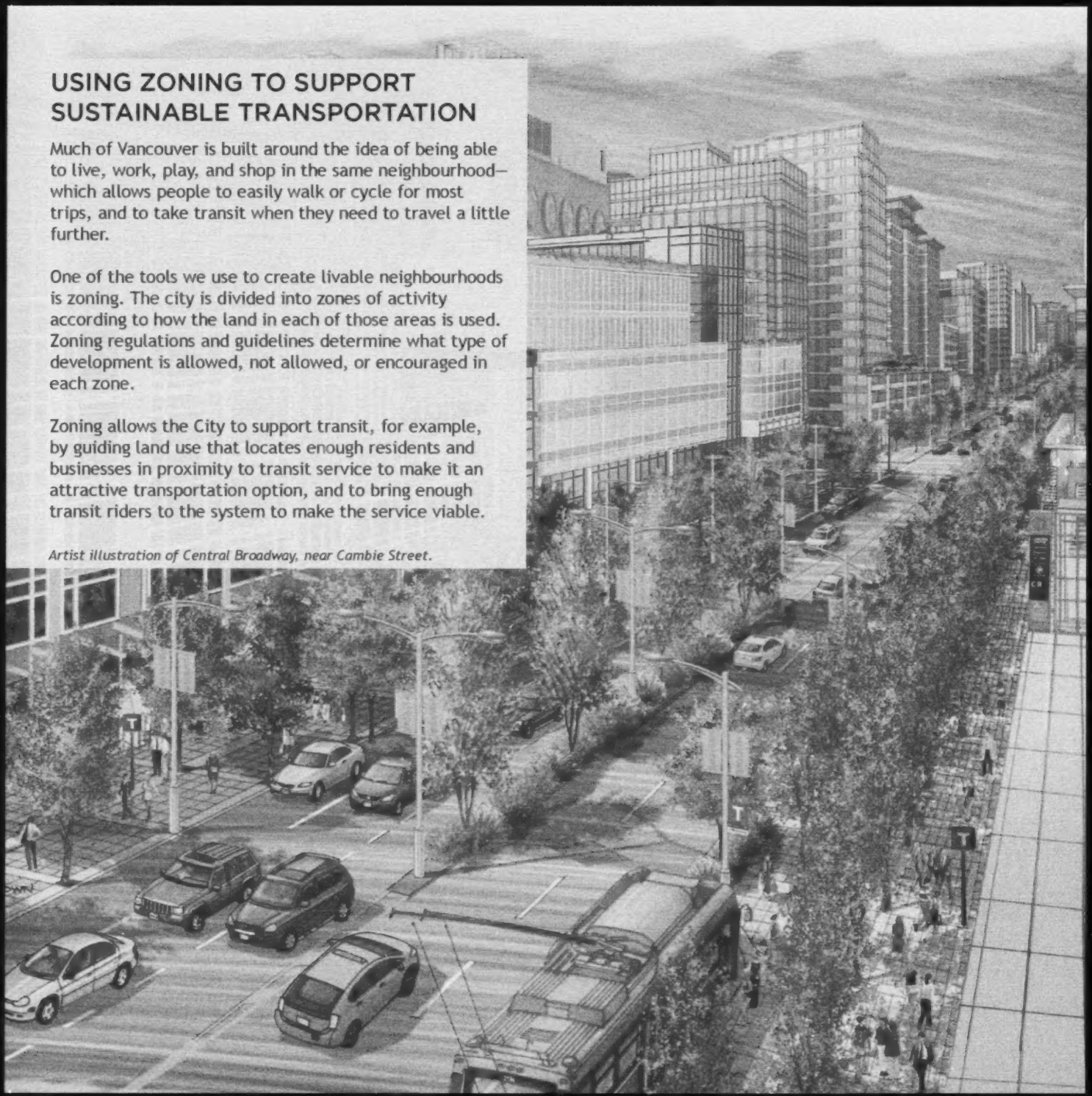


USING ZONING TO SUPPORT SUSTAINABLE TRANSPORTATION

Much of Vancouver is built around the idea of being able to live, work, play, and shop in the same neighbourhood—which allows people to easily walk or cycle for most trips, and to take transit when they need to travel a little further.

One of the tools we use to create livable neighbourhoods is zoning. The city is divided into zones of activity according to how the land in each of those areas is used. Zoning regulations and guidelines determine what type of development is allowed, not allowed, or encouraged in each zone.

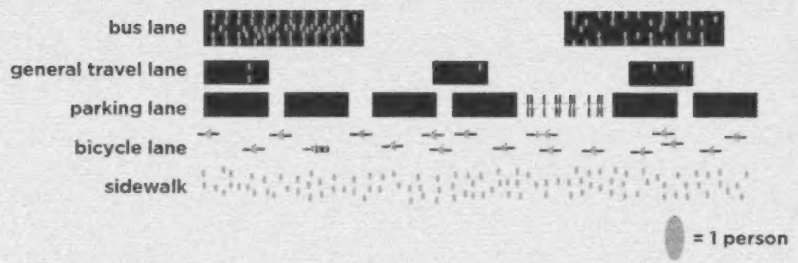
Zoning allows the City to support transit, for example, by guiding land use that locates enough residents and businesses in proximity to transit service to make it an attractive transportation option, and to bring enough transit riders to the system to make the service viable.



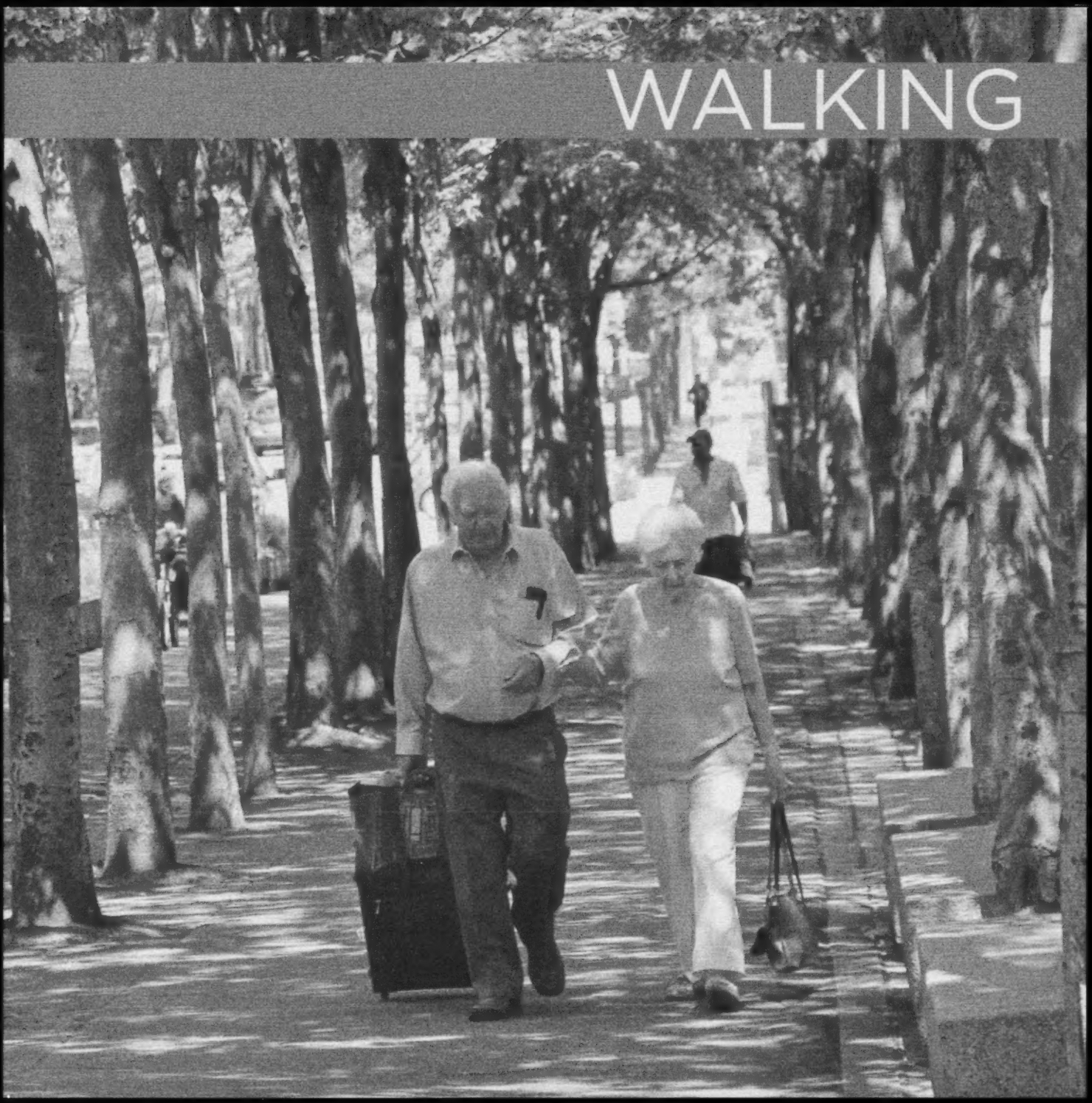
Artist illustration of Central Broadway, near Cambie Street.

ROAD SPACE MUST BE USED EFFICIENTLY

Since there are few opportunities to build new roads, we must use our existing streets more efficiently. Private cars take up significantly more road space than other forms of transportation. Transit vehicles, bicycles, and walking all require less space than cars to move more people.



WALKING



Support a vibrant public life and healthy lifestyles by making walking safe, convenient, comfortable, and delightful.

BACKGROUND

Almost everyone is a pedestrian for at least part of each journey. Walking, defined in this plan to include movement with wheelchairs and other mobility aids, is the cheapest and most space-efficient way to travel. It increases opportunities for community interaction and is a healthy choice for both people and the environment. It's also good for business—our most successful commercial streets tend to be the ones with the highest pedestrian volumes.

Vancouver is a leader in North America when it comes to walking. A big part of why so many people walk in our city is that it was built on a network of closely spaced streets, so walking routes are almost always direct. Good land use planning has also been critical, bringing people closer to their daily destinations and making walking the easiest and most convenient option for many trips.

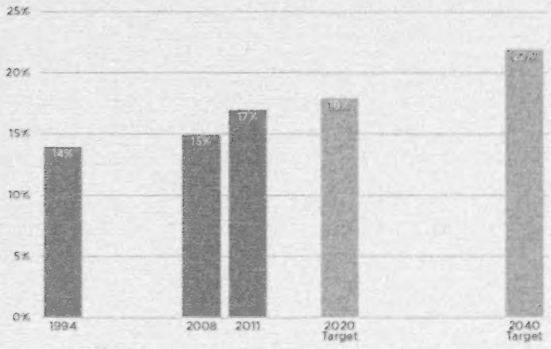
We have strived to build an environment that is accessible and interesting for walking. There is plenty of room for improvement, however. Some streets are unpleasant to walk along because sidewalks are too narrow, too bumpy, missing curb ramps, or there is little or no buffer space between people travelling on foot and moving traffic. Insufficient pedestrian crossings and lighting and poorly designed buildings and outdoor spaces can make some places feel less safe, particularly at night.

This plan focuses on pedestrian safety and accessibility by addressing gaps in the network, providing wider sidewalks in congested areas, and creating more interesting streets and public spaces that feel safe and support a vibrant public life. New development, especially in areas outside the downtown, will create opportunities to lessen the distance between destinations and improve the pedestrian environment. Walking will continue to be the City's top transportation priority.

Artist illustration of Comox-Helmcken Greenway, at Denman Street.

TRENDS AND TARGETS

City Trips Made by Walking

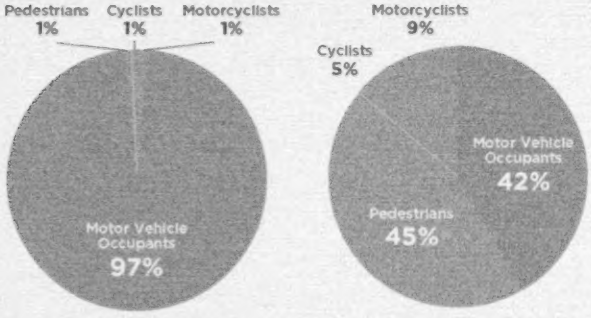


For all trips originating in the City of Vancouver.
Source: TransLink Trip Diaries, City of Vancouver 2020 and 2040 targets.
Opinions expressed do not necessarily represent the views of TransLink.

Walking has been steadily increasing as a method of transportation. By 2040, the target is for 22% of trips to be made on foot.

Pedestrians are involved in only 1% of collisions, but account for 45% of fatalities.

Vulnerable Road Users



Source: ICBC 2005-2010, VPD 2005-2010
Total is greater than 100 due to rounding.

POLICY BASIS

PEDESTRIAN NETWORK

Vancouver is fortunate to have a relatively fine-grain street grid throughout most of the city. The walking network is fairly complete, but gaps and barriers create some challenges for people on foot. In areas with poor pedestrian connectivity, new or improved pathways and signalized crossings will be created where feasible. Priority will be given to locations that increase access to transit or are major trip generators, such as areas around schools and community centres.

People travelling on foot are the most vulnerable of our road users. The City will address safety "hotspots," prioritizing improvements to high-crash locations and areas with high walking potential. We will also continue to implement pedestrian-oriented designs as streets are rebuilt, to improve safety for all modes of travel. Intersections are particularly important, since this is where about 75% of collisions involving pedestrians occur.

Streets must be designed to be accessible to everyone. An accessible public realm is the foundation of an inclusive city, promoting equity by allowing all people to meet their daily needs and participate in public life. Providing generous, unobstructed sidewalk space supports more walking and street activity, and helps ensure people with mobility aids can get around. Public realm design and

maintenance approaches can minimize the annoyances of a rainy day and even celebrate rain. Maps and other wayfinding measures are essential to helping people navigate the city and find their way around.

City street design guidelines will support high-quality, pedestrian-friendly streets that feel safe and are interesting and comfortable. Design guidelines will recognize that streets are not all the same—some are part of the transit or truck network, for example, while others might be gathering spaces. Streets can also contribute to the natural environment and support local ecosystems when designed as part of a green network.

PUBLIC SPACES

Streets and sidewalks are a significant part of the public realm. They are not just places to move through, but places to spend time in, fulfilling transportation needs while supporting a vibrant public life that benefits commerce and community.

Public plazas and gathering spaces play a vital role in public life, enabling celebrations and protests, community events, and neighbourly interaction. When designed, located, and programmed appropriately, they are vibrant spaces that allow lingering and support local businesses with plenty of walk-by traffic.

The City will continue to enable and encourage creative uses of streets and public rights-of-way through pilot projects, competitions, and funding partnerships. We will also explore seasonal and permanent pedestrian-priority streets and spaces. In all cases, the needs of pedestrians, cyclists, transit, services, and delivery vehicles require careful consideration.

PUBLIC COMMENT

"I lost weight and became healthier by walking and taking transit."

—public engagement participant

WALKING POLICIES

W1 Pedestrian Network

- W1.1 Make streets safer for walking
- W1.2 Provide generous, unobstructed sidewalks on all streets
- W1.3 Make streets accessible for all people
- W1.4 Make streets and public spaces rain-friendly
- W1.5 Address gaps in the pedestrian network
- W1.6 Provide a blueprint for great pedestrian realm design
- W1.7 Make the city easy to navigate on foot

W2 Public Spaces

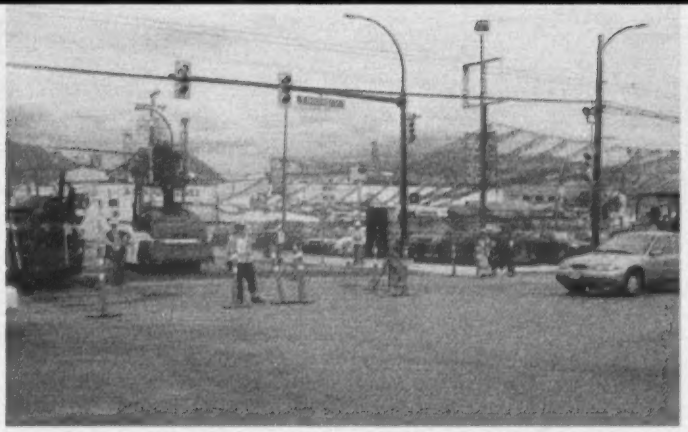
- W2.1 Enable and encourage creative uses of the street
- W2.2 Create public plazas and gathering spaces throughout the city

HIGHLIGHTED ACTIONS

Some of the Walking actions to be taken by the City:

- Implement an ongoing spot improvement program to address pedestrian safety and accessibility issues
- Provide additional amenities such as benches and enhanced lighting along priority walking streets
- Make the False Creek bridges and other deficient areas safer and more accessible on foot
- Launch a parklet program to foster the conversion of on-street parking spaces into low-cost public spaces
- Implement signal measures to prioritize pedestrian movement at intersections

The complete list of Walking actions can be found at **vancouver.ca/transportation2040**



A SAFE AND ACCESSIBLE WALKING ENVIRONMENT

There are many ways to make our streets safer, more comfortable, and more accessible for walking. The City's pedestrian safety toolkit includes extending curbs at intersections to minimize crossing distances, installing countdown timers and reviewing signal timing to make sure people have enough time to cross, and maximizing visibility through lighting, clear sight lines, and pavement markings.

An accessible public realm is the foundation of an inclusive city, promoting equity by allowing people to meet their daily needs and fully participate in public life. Some of the features that make streets accessible include wide unobstructed pathways, smooth rolling surfaces, curb ramps, audible signals, and comfortable places to rest.

Many other elements are also important in creating a comfortable walking environment, including trees and landscaping, buffers between people on foot and moving cars, wayfinding signs and maps, street banners and artwork, street furniture, and public restrooms.

CREATIVE USE OF THE STREET

Each year, the VIVA Vancouver program animates Vancouver's streets by creating comfortable and accessible spaces where people can relax, connect, be entertained, or just people-watch. An important objective of the program is to test new ideas in partnership with businesses and communities. Free activities and dynamic public spaces promote a culture of walking and spending time outside in vibrant urban settings across the city.

MOVING THE PLAN FORWARD

See these sections for how the plan is being delivered in local areas of the city:

- Wider Sidewalks in Commercial Areas and Near Transit
- False Creek Bridges
- Seawall Improvements
- Vibrant Public Spaces
- Georgia and Dunsmuir Viaducts / Eastern Core
- The Arbutus Corridor
- The Fraser River Area

CYCLING

Make cycling safe, convenient, comfortable, and fun for people of all ages and abilities.

BACKGROUND

For many people, cycling is a healthy, fun, and inexpensive way to travel. It creates no emissions, and can be a great way to experience the city's streets and neighbourhoods while getting exercise. Cycling is also practical, since it is often the fastest way to get around for shorter trips. Many trips in the city are less than 5 km, which is less than 20 minutes by bike.

There is mounting evidence that cycling is good for local business. Surveys show that people who cycle often have more disposable income than drivers, and are more likely to shop locally.

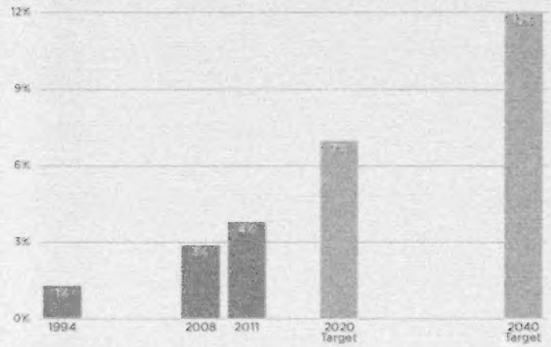
While cycling is growing in popularity, many people are discouraged from riding because it seems dangerous or impractical. There are many challenges, including a lack of direct routes, finding convenient and secure parking, weather, and topography, but the biggest concern for most people is motor vehicle traffic.

In the past, we have mostly built cycling facilities that appeal to people who are already comfortable riding in traffic, but efforts must be made to make cycling appeal to a wider audience. This includes building routes that are comfortable for everyone, including children, seniors, and novice cyclists.

Education, encouragement, and enforcement are also important parts of our cycling strategy, and are covered in a separate section.

TRENDS AND TARGETS

City Trips Made by Cycling

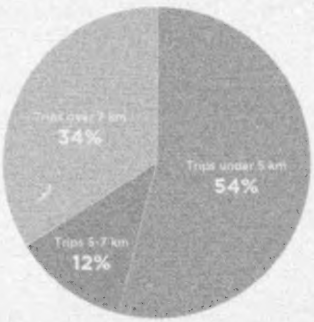


For all trips originating in the City of Vancouver.
Source: TransLink Trip Diaries, City of Vancouver 2020 and 2040 targets.
Opinions expressed do not necessarily represent the views of TransLink.

Cycling has been steadily increasing as a method of transportation. By 2040, the target is for 12% of trips to be made by bike.

More than half of all trips in the city are under 5 km—less than 20 minutes by bike. Yet over half of these trips are currently made by car.

Trip Length



For all trips originating in the City of Vancouver.
Source: Data and analysis based on TransLink Trip Diaries. Opinions expressed do not necessarily represent the views of TransLink. Twenty-minute trip length is based on an average cycling speed of 15 km/hour.

POLICY BASIS

CYCLING NETWORK

For cycling to become a mainstream transportation choice, routes should feel comfortable and low-stress for everyone, including children, seniors, and new cyclists. Routes on busy streets with lots of cars should be separated from motor vehicle traffic whenever possible. Routes on local streets may need traffic calming to keep motor vehicle speeds and volumes low.

Cycling routes are most useful when they connect to form a network that provides direct and convenient access to important destinations—like schools, community centres, libraries, transit stations, and employment and shopping areas. A good network has an appropriate density of routes, spaced closer together in urban centres and areas with the highest cycling potential. Topography is another important factor to consider in network design, since steep hills can discourage all but the most determined person from riding a bicycle. Routine and targeted maintenance helps keep routes smooth and free of debris, improving safety and comfort for new and experienced riders alike.

A seamless, easy-to-understand wayfinding system is important to help people find the bicycle network and confidently navigate from place to place. Consistent and

direct routes, even across municipal boundaries, minimize the need to refer to maps. Where cycling is permitted or prohibited through pedestrian-priority areas and other types of road closures, clear design and signage is important.

PARKING AND END-OF-TRIP FACILITIES

Cyclists need convenient places to securely park a bike when they reach their destination—whether for five minutes or for the entire day. Different kinds of bicycle parking offer different levels of convenience and security. Well-designed bike corrals and sidewalk racks provide a basic level of security for short stops. When bikes are parked for longer periods, bike cages, indoor stations, pay-as-you-go lockers, or even automatic storage systems can provide a higher level of security. Parking locations should be convenient to access at the beginning and end of every trip.

End-of-trip facilities such as change rooms, gear storage facilities, and showers are useful to commuters who travel at high speed over longer distances or in rainy weather.

MULTI-MODAL INTEGRATION

Cycling extends the catchment area for transit services in a cost-effective manner, and provides a fast and flexible option to transit riders at the beginning or end of their transit trips. Cycling can also extend walking trips, or be combined with other modes.

A public bicycle system will offer convenience to people wanting to extend walking and transit trips. A dense network of stations will be put in areas with high cycling potential, good cycling facilities, and where connections with transit routes can be maximized. Route safety improvements, cycling education, and skills programs will complement the public bicycle system.

CYCLING POLICIES

C1 Cycling Network

- C1.1 Build cycling routes that feel comfortable for people of all ages and abilities
- C1.2 Upgrade and expand the cycling network to efficiently connect people to destinations
- C1.3 Maintain bikeways in a state of good repair
- C1.4 Make the cycling network easy to navigate

C2 Parking and End-of-Trip Facilities

- C2.1 Provide abundant and convenient bicycle parking and end-of-trip facilities

C3 Multi-Modal Integration

- C3.1 Make it easy to combine cycling with other forms of transportation
- C3.2 Provide a public bicycle system

PUBLIC COMMENT

"Since the separated routes were built, biking has become a part of my daily routine."

—public engagement participant

HIGHLIGHTED ACTIONS

Some of the Cycling actions to be taken by the City:

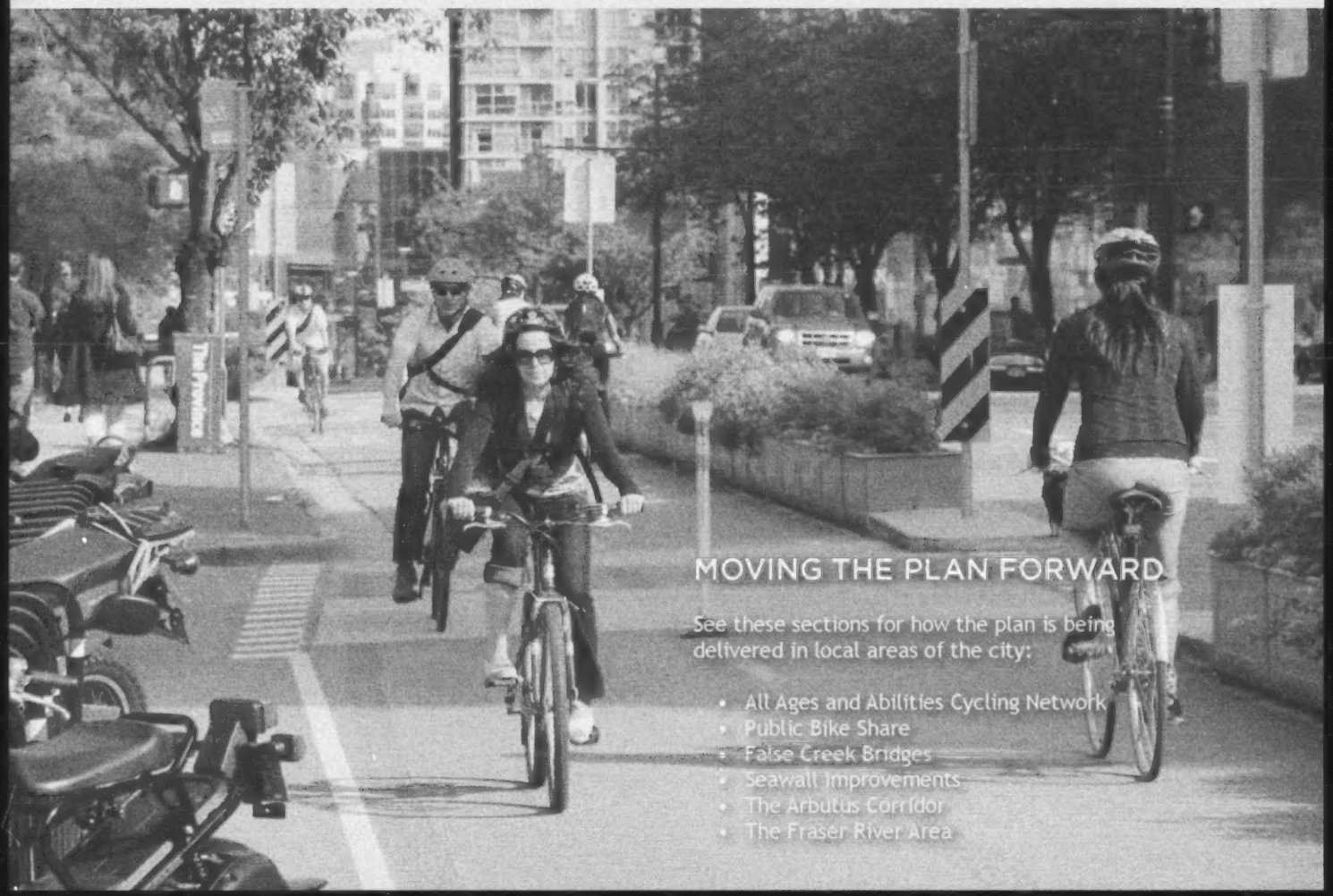
- Implement an ongoing spot improvement program to address safety, comfort, and capacity issues on the existing bike network
- Expand the bike network, prioritizing areas with high cycling potential, gaps in the network, collision "hotspots," and connections to key destinations
- Implement a public bike sharing program
- Provide bike stations with high-security parking and other amenities in the downtown and at transit stations
- Improve signage on bike routes to make it easier for people to navigate the network and find key destinations

The complete list of Cycling actions can be found at **vancouver.ca/transportation2040**

CYCLING ROUTES FOR ALL AGES AND ABILITIES

Cycling routes that are comfortable for everyone to use are specifically designed for this purpose. Routes in the AAA (all ages and abilities) cycling network have these design traits:

- Physical separation from motor vehicles that keep cyclists safe on busy streets
- Traffic calming measures that reduce traffic and keep vehicle speed low on local street bikeways
- Safe intersections and crossings with good visibility that reduce conflicts between road users
- Pavement markings that draw attention to potential conflict zones
- Synchronized lights and appropriately placed stop signs that prioritize bike movement
- Amenities (bike pumps, foot rests) supplied in key locations
- Other active transportation modes (cargo bikes, skateboards) can share the route

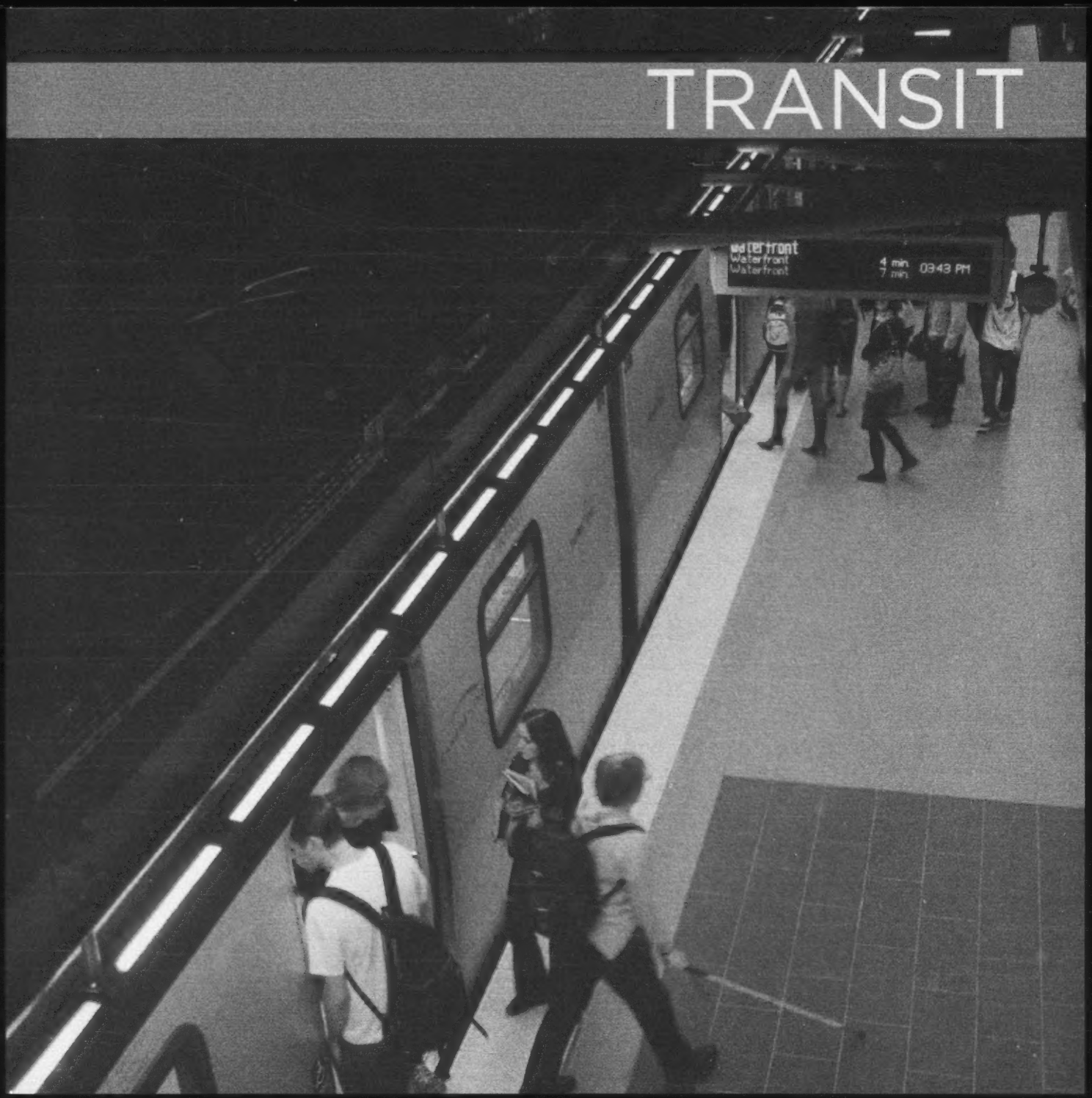


MOVING THE PLAN FORWARD

See these sections for how the plan is being delivered in local areas of the city:

- All Ages and Abilities Cycling Network
- Public Bike Share
- False Creek Bridges
- Seawall Improvements
- The Arbutus Corridor
- The Fraser River Area

TRANSIT



Support transit improvements to increase capacity and ensure service that is fast, frequent, reliable, fully accessible, and comfortable.

BACKGROUND

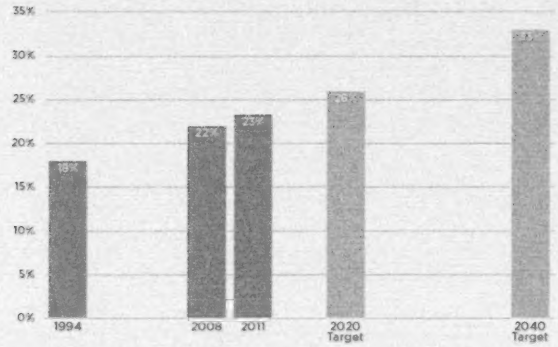
Great transit is essential to our city's success. It moves very large numbers of people in small amounts of space, supporting a growing economy without contributing to traffic congestion. Transit pairs well with walking and cycling by extending the range a person can travel, and links walkable neighbourhoods to one another. It competes with driving for long-distance trips by providing a time-competitive, inexpensive, and environmentally friendly alternative to the private car. By providing low-barrier access to key destinations, it supports an inclusive city where everyone can meet their daily needs.

Transit ridership in Vancouver has grown significantly in recent years, and new services such as the Canada Line have been met with instant success. Unlike most North American cities, transit demand in Vancouver far exceeds capacity. Overcrowded buses routinely pass long lineups of waiting passengers and there are trip denials on HandyDART, the region's paratransit service. To meet existing demand and support our long-term targets, more service is essential. Service optimization can help somewhat, but significant new investment is needed—and that requires new and improved funding sources.

While the City does not own or operate transit—TransLink is responsible for the region's transit system—the City can assist by building transit-supportive streets and public spaces, protecting corridors and sites for future routes and stations, and making transit-supportive land use decisions.

TRENDS AND TARGETS

City Trips Made by Transit

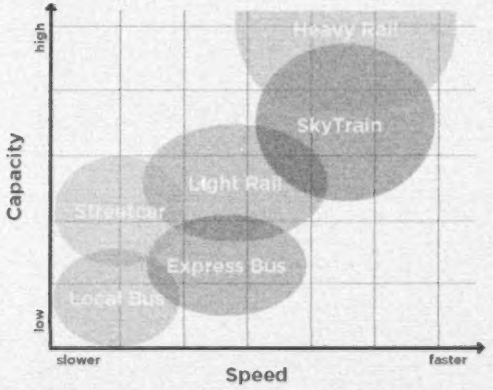


For all trips originating in the City of Vancouver.
Source: TransLink Trip Diaries, City of Vancouver 2020 and 2040 targets.
Opinions expressed do not necessarily represent the views of TransLink.

Transit use has been steadily increasing. By 2040, the target is for 33% of trips to be made by transit.

A successful transit system has a range of services that operate at different speeds, frequencies, and capacities. Frequent rapid transit service, such as SkyTrain, moves a lot of people quickly as compared to slower, lower-capacity buses. However, all transit services are needed to complete the transit network and provide service for everyone.

Spectrum of Transit Service



POLICY BASIS

TRANSIT NETWORK

Vancouver's transit network features a range of services, from local buses serving neighbourhood routes where stops are spaced close together to rapid transit running at high speeds between stops spaced further apart. Commercial transit providers assist trips that extend beyond regional boundaries. Rail, ferry, and seaplane services also provide attractive and potentially less expensive options to driving.

TRANSIT-SUPPORTIVE PUBLIC REALM

Although the City does not own or operate the regional transit system, it does have significant control over its streets and rights-of-way, which can be used to support transit. Strategically locating transit priority measures such as bus bulges, queue jumpers, signal priority, and lane priority or reallocation can be effective ways to improve transit capacity, speed, and reliability.

The City can improve transit by facilitating clear and easy connections between services. Connections are especially important at regionally significant interchanges with high volumes of boardings and transfers. Stations should be designed to facilitate movement for people of all ages and abilities—including those with bicycles and mobility aids, and waiting areas should be made comfortable.

INTEGRATION WITH OTHER MODES

Cycling is an inexpensive way to extend the catchment area of transit, but measures need to be taken to address concerns of safety and theft. Car sharing and taxis can also extend the transit system. See the sections on Cycling and Motor Vehicles for specific policies and actions on these topics.

NEIGHBOURHOOD IMPACTS

Noise, vibration, and air pollution are concerns for residences and businesses along major transit corridors. Dealing with these impacts is important to maintaining the livability of Vancouver's neighbourhoods, particularly as the City aims to focus more density and jobs in close proximity to transit. Reducing transit-related emissions will also contribute to realizing Greenest City goals to eliminate dependence on fossil fuels and breathe the cleanest air of any major city in the world.

Maintaining roads on busy transit routes requires additional investment, and TransLink currently shares the cost of maintenance for streets that are part of the regional Major Road Network.

ACCESSIBILITY

A universally accessible transit system enables all residents to meet their daily needs and participate in civic life. Applying principles of universal design to the entire transit system—vehicles, stations, and waiting areas—ensures the widest range of users are able to use it and reduces the need for more expensive specialized services. Local routes with stops located close to destinations, and paratransit services like HandyDART, will continue to be important parts of the transit service spectrum.

TRANSIT FINANCING

The regional transit system faces major funding challenges. Sufficient and stable funding is needed to provide service to meet existing and future transit demands. Various new funding tools have been identified, some of which require enabling legislation at the provincial level. The City supports a number of tools, including increasing the regional fuel tax, a transportation carbon tax, a vehicle registration fee, and road pricing as preferable alternatives to raising property taxes.

TRANSIT POLICIES

T1 Transit Network

- T1.1 Advance new and improved rapid transit
- T1.2 Advance new and improved local transit
- T1.3 Improve transit reliability and speed using transit-priority measures
- T1.4 Support increased water-based transit
- T1.5 Support improved interregional transit

T2 Transit-Supportive Public Realm

- T2.1 Support a transit system that is easy to navigate
- T2.2 Provide easy connections and comfortable waiting areas throughout the network

T3 Integration with Other Modes

- T3.1 Make it easy to combine cycling and transit trips
- T3.2 Provide a public bicycle system
- T3.3 Support improved integration with taxis

T4 Accessibility

- T4.1 Support a universally accessible transit system with a goal of equal transit outcomes for people of all incomes, ages, and abilities

T5 Neighbourhood Impacts

- T5.1 Reduce transit-related environmental and noise emissions
- T5.2 Maintain transit streets to a high standard

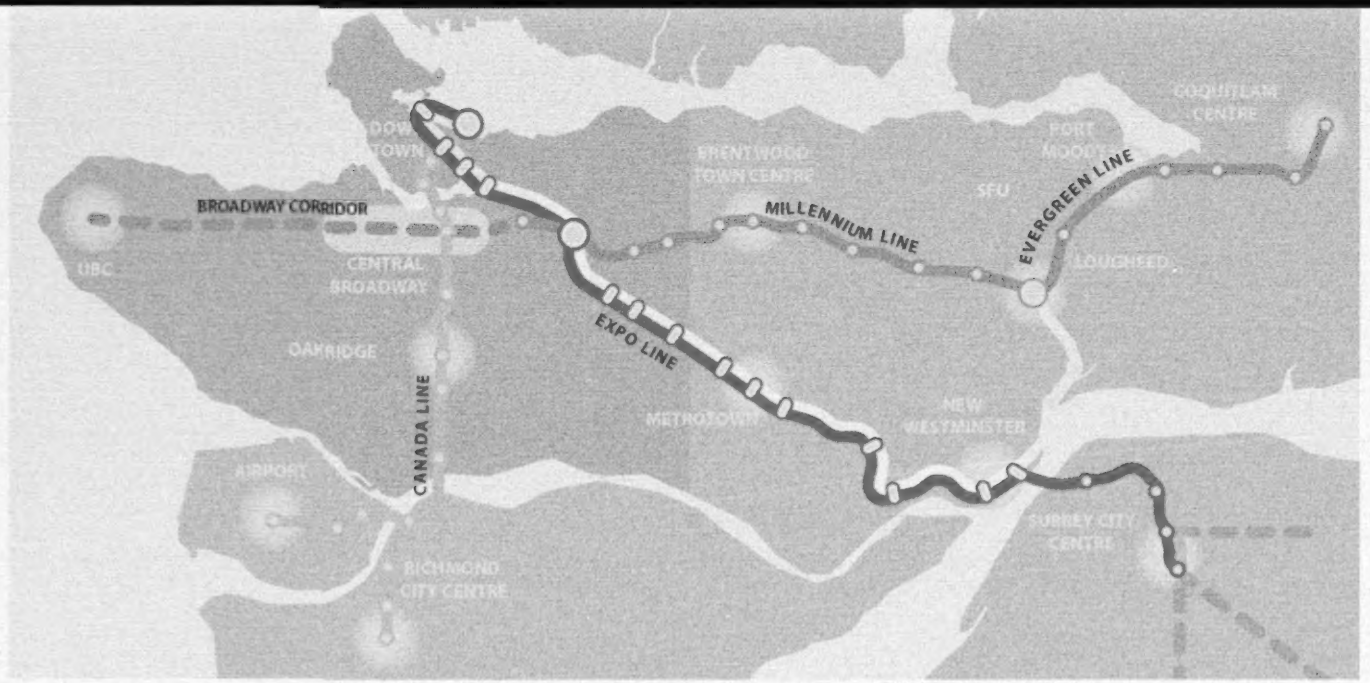
T6 Transit Financing

- T6.1 Support stable and equitable long-term transit funding sources
- T6.2 Support effective fares that encourage transit use

PUBLIC COMMENT

"Please invest more into SkyTrain initiatives. They will truly make Vancouver a better place to live and work... A SkyTrain line along Broadway would be ideal."

—public engagement participant



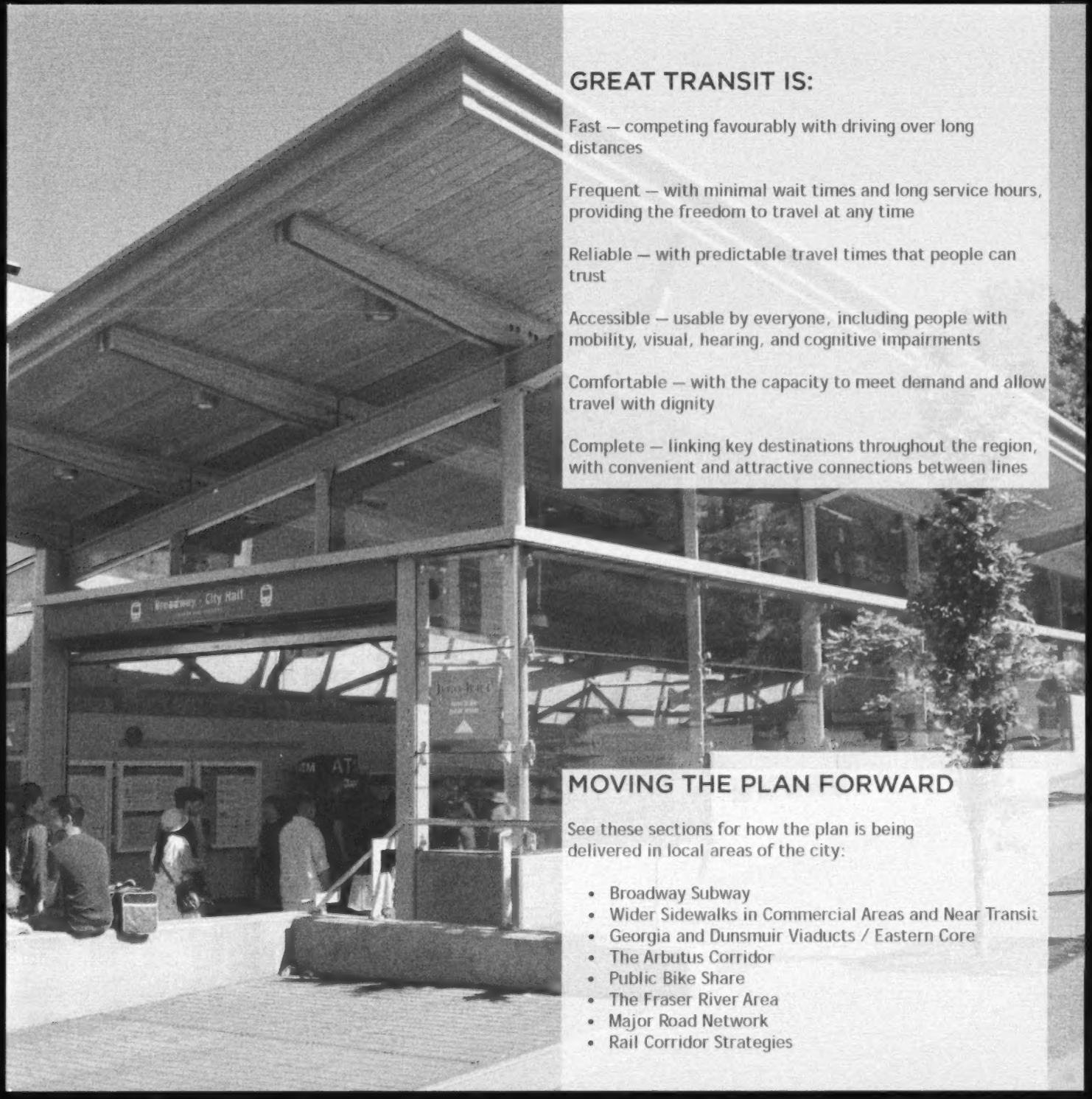
Above: The Broadway Corridor is a major gap in the regional transit network.
Below: Artist illustration of Central Broadway, at Cambie Street.

HIGHLIGHTED ACTIONS

Some of the Transit actions to be taken by the City:

- Work with partners to deliver a Broadway Corridor subway line
- Protect areas for future transit stations
- Support an expanded trolley bus network
- Strategically implement measures such as lane priority and signal changes to improve transit speed and reliability
- Provide accessible waiting and boarding areas at all transit stops

The complete list of Transit actions can be found at **vancouver.ca/transportation2040**



GREAT TRANSIT IS:

Fast — competing favourably with driving over long distances

Frequent — with minimal wait times and long service hours, providing the freedom to travel at any time

Reliable — with predictable travel times that people can trust

Accessible — usable by everyone, including people with mobility, visual, hearing, and cognitive impairments

Comfortable — with the capacity to meet demand and allow travel with dignity

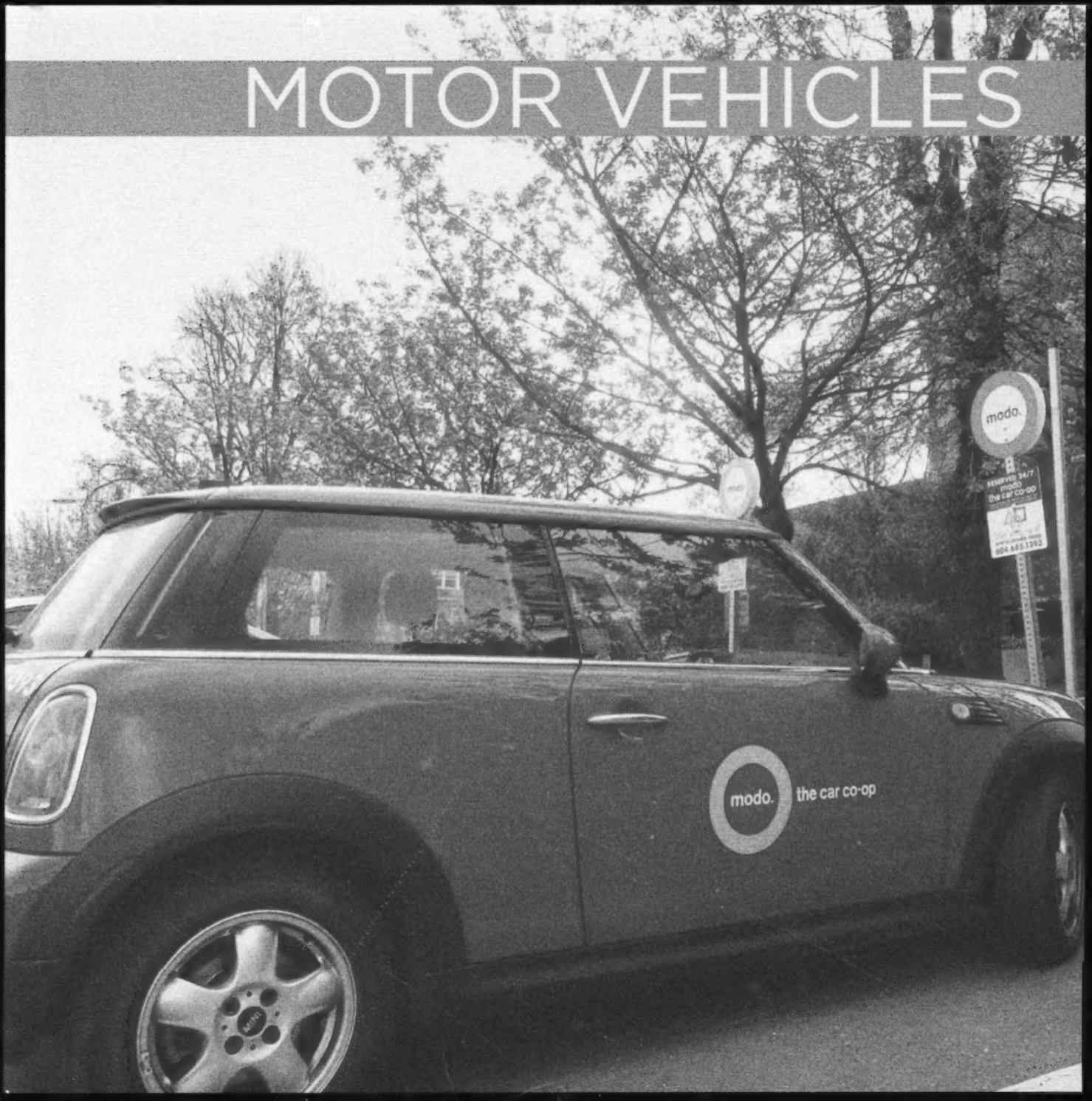
Complete — linking key destinations throughout the region, with convenient and attractive connections between lines

MOVING THE PLAN FORWARD

See these sections for how the plan is being delivered in local areas of the city:

- Broadway Subway
- Wider Sidewalks in Commercial Areas and Near Transit
- Georgia and Dunsmuir Viaducts / Eastern Core
- The Arbutus Corridor
- Public Bike Share
- The Fraser River Area
- Major Road Network
- Rail Corridor Strategies

MOTOR VEHICLES



Improve road safety, manage congestion, make it easier to drive less, and accelerate the shift to low-carbon vehicles.

BACKGROUND

Private automobiles will continue to play an important role in Vancouver for the foreseeable future. A key goal of this plan is to improve safety and minimize congestion. At the same time, the plan also supports a gradual transition to fewer car trips.

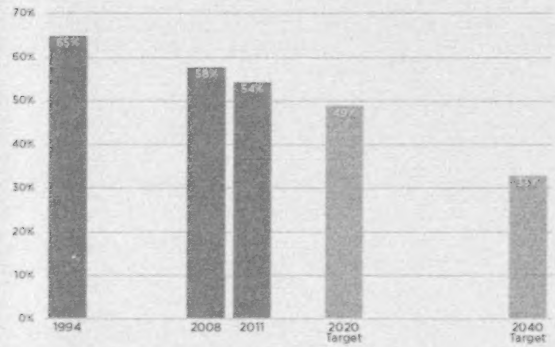
The number of people living, working, and visiting the city is continuing to grow. This means more trips on finite road space—trips that cannot be accommodated by driving. We have made great progress in recent years, with motor vehicle volumes into the city and downtown declining despite significant growth in overall travel. The City's challenge is to maintain this trend, continuing to accommodate the trips that need to be made by motor vehicles while encouraging a shift toward more sustainable modes and improving overall quality of life.

Reducing car dependence benefits everyone, including those who need to drive. By shifting some car trips to other modes, more space is created for cars and trucks that do need to be on the road—for goods movement, services and deliveries, and emergency response, for example. Providing options that reduce the need to drive or own a car helps residents save thousands of dollars each year. And since the vast majority of traffic collisions resulting in serious injury or death involve at least one motor vehicle, reduced car use helps improve safety for all modes.

Private vehicles are not going to disappear anytime soon, so *it is important to support the shift to low-emission vehicles* in order to meet our long-term air quality and emissions targets.

TRENDS AND TARGETS

City Trips Made by Driving

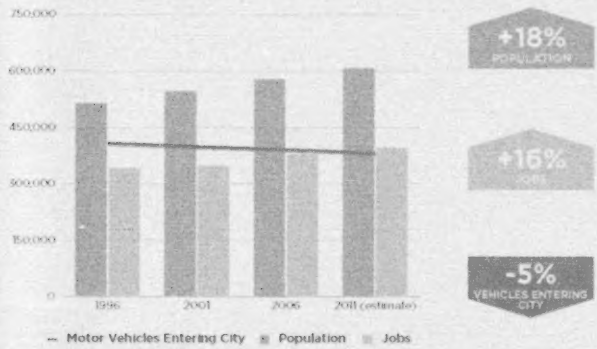


For all trips originating in the City of Vancouver.
Source: TransLink Trip Diaries, City of Vancouver 2020 and 2040 targets.
Opinions expressed do not necessarily represent the views of TransLink.

The number of trips made by car in the city has been declining. By 2040, the target is for 33% or fewer trips to be made by driving.

Over the past 15 years, the number of people living, working, and travelling in the city has grown, and there are more trips in the city than ever. Despite this, the total number of cars entering the city and downtown has declined. Walking, cycling, and transit have accommodated the overall growth.

Motor Vehicles Entering Vancouver



Source: CoV estimates based on screenline counts and census information.

POLICY BASIS

ROAD NETWORK

Vancouver's relatively fine-grain street network provides many benefits. It results in fairly direct travel routes, minimizing overall trip distances. It also provides greater flexibility to close off or modify portions of routes—to host street celebrations or festivals, for example—since parallel routes are usually close by.

As the number of residents, employees, and visitors continues to grow, the number of trips and street activities will also rise. Accommodating this growth will require reallocation of road space to improve the efficiency of existing rights-of-way.

PARKING

Managing parking is one of the City's biggest opportunities to support a smart and efficient transportation system. Parking policies influence travel choice, affect housing and business costs, and significantly shape the public realm. Too much surface parking creates a hostile environment that is unpleasant to walk or cycle in, and underpriced parking can contribute to congestion problems and reduce neighbourhood livability. Appropriately priced parking encourages turnover in retail areas, thereby supporting local economic activity. This plan includes a number of directions related to parking supply, management, and design.

CAR SHARING

Car sharing is a system where a fleet of communal vehicles is available in convenient locations to registered members. Members typically pay a small monthly administrative fee to cover some of the fixed costs, but most usage costs are paid on a per-kilometre or per-hour basis. Car sharing makes it easier for households to go car-lite or car-free, helping members save money while still having access to a car when they really need one. Since members are less likely to own private cars, car sharing also helps free up road space for other uses.

OTHER DEMAND MANAGEMENT TOOLS

Minimizing unnecessary driving trips reduces automobile congestion and improves traffic flow for transit, goods, and services. The City supports a variety of programs that encourage people to drive less by reducing their need to travel or enabling the choice of other modes. Many of the directions contained in this plan are effectively demand management strategies, since they make alternatives to driving more appealing.

LOW-CARBON VEHICLES

Even with an increase in walking, cycling, and transit, there will still be cars on the road. Widespread adoption of low- and zero-emission vehicles is critical to meeting our greenhouse gas reduction targets, and to ensuring a cleaner, greener future. The City will support and build upon the actions established through Project Get Ready, a multi-stakeholder non-profit initiative to encourage low-carbon vehicle technologies.

TAXIS

When walking, cycling, and public transit are not options, taxis help to fill the gap. In BC, the role of regulating taxis is shared between the provincial government and local municipalities. The provincial Passenger Transportation Board controls the number of taxi licenses based on service demand in each region. The City will continue to support improved taxi service by regulating taxi companies through the Vehicles for Hire bylaw and setting requirements for vehicle age and condition, driver licensing and identification, and vehicle inspections.

PUBLIC COMMENT

"We got rid of our car after joining [a car-sharing program] and it's saved us a lot of money. Our family walks and bikes more and we still have access to a vehicle when we need it."

—public engagement participant

MOTOR VEHICLE POLICIES

M1 Road Network

M1.1 Optimize network operations to manage congestion impacts

M1.2 Consider impacts to transit, commercial vehicles, and general traffic flow prior to reallocating road space

M1.3 Manage traffic to improve safety and neighbourhood livability

M2 Parking

M2.1 Use off-street parking requirements to support reduced auto ownership and use

M2.2 Support strategies that reduce the need for parking

M2.3 Separate parking and housing costs to increase housing affordability

M2.4 Approach parking as a shared district resource

M2.5 Design parking to be flexible and adaptable

M2.6 Make it easier for drivers to find available parking spaces

M2.7 Manage parking in neighbourhoods

M2.8 Provide accessible parking for persons with disabilities

M2.9 Support cycling, low-carbon vehicles, and car sharing

M2.10 Support efficient loading and servicing

M3 Car Sharing

M3.1 Support increased car sharing

M4 Other Demand Management Tools

M4.1 Support transportation demand programs that are employer-, institutional-, and district-based

M4.2 Support regional road or congestion pricing, with revenue directed toward sustainable transportation improvements

M4.3 Support insurance options that reward drivers for driving less

M5 Low-Carbon Vehicles

M5.1 Provide charging infrastructure to support electric vehicles

M5.2 Support early deployment of low-carbon and electric vehicles

M6 Taxis

M6.1 Support improved taxi service

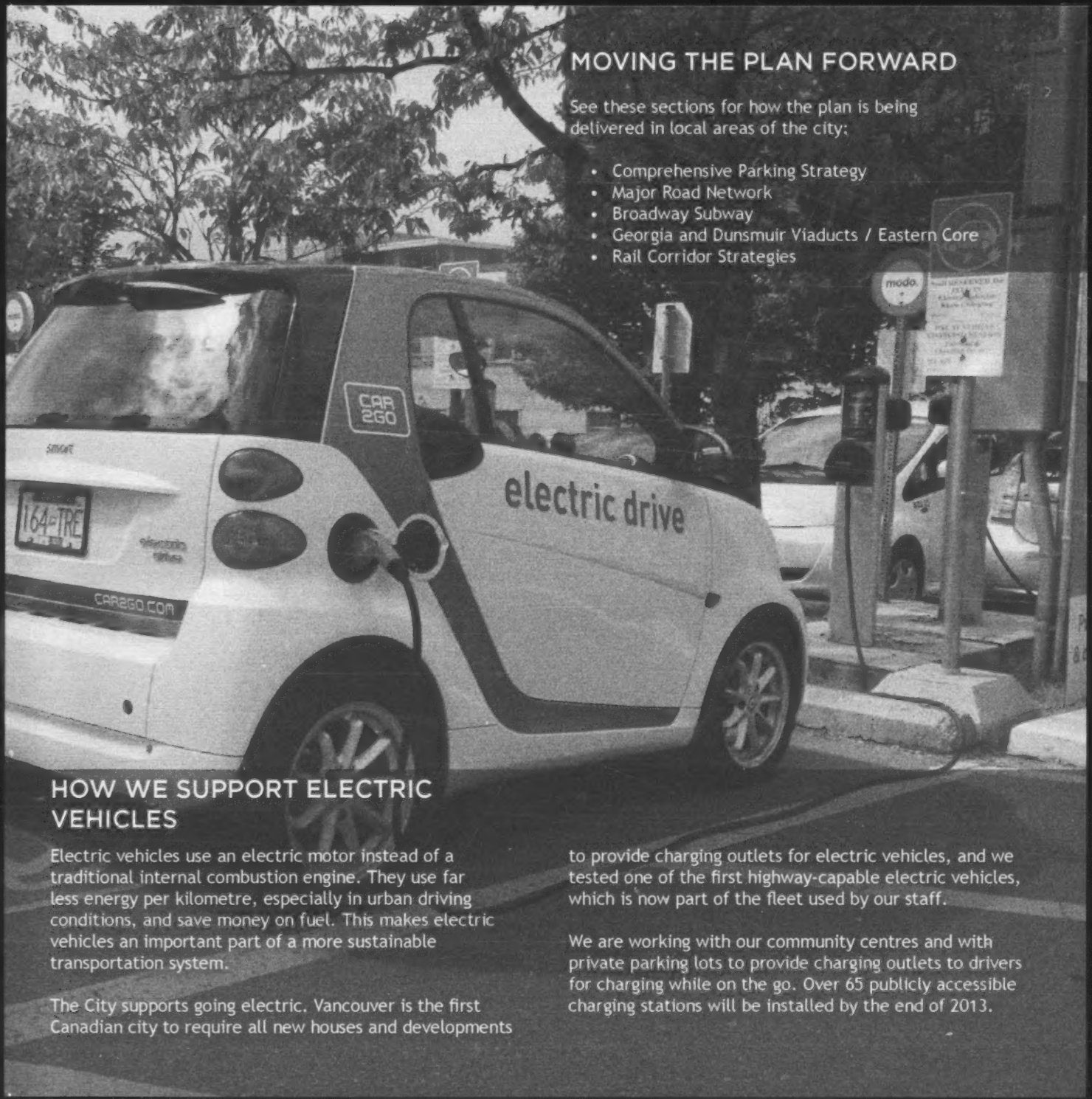
M6.2 Support safe use of taxis for persons with disabilities

HIGHLIGHTED ACTIONS

Some of the Motor Vehicle actions to be taken by the City:

- Optimize network operations like signal timing and rush hour parking regulations to manage congestion
- Partner with private industry to provide electric car charging stations throughout the city
- Provide real-time parking information on City-owned lots to make it easier for drivers to find available spaces
- Eliminate minimum parking requirements in the downtown and near rapid transit stations
- Create a toolkit to assist in developing strategies to reduce parking demand in new development

The complete list of Motor Vehicle actions can be found at **vancouver.ca/transportation2040**



MOVING THE PLAN FORWARD

See these sections for how the plan is being delivered in local areas of the city:

- Comprehensive Parking Strategy
- Major Road Network
- Broadway Subway
- Georgia and Dunsmuir Viaducts / Eastern Core
- Rail Corridor Strategies

HOW WE SUPPORT ELECTRIC VEHICLES

Electric vehicles use an electric motor instead of a traditional internal combustion engine. They use far less energy per kilometre, especially in urban driving conditions, and save money on fuel. This makes electric vehicles an important part of a more sustainable transportation system.

The City supports going electric. Vancouver is the first Canadian city to require all new houses and developments to provide charging outlets for electric vehicles, and we tested one of the first highway-capable electric vehicles, which is now part of the fleet used by our staff.

We are working with our community centres and with private parking lots to provide charging outlets to drivers for charging while on the go. Over 65 publicly accessible charging stations will be installed by the end of 2013.

GOODS, SERVICES, AND EMERGENCY RESPONSE

Support a thriving economy, manage the impacts of moving goods and services, and maintain effective emergency response times.

BACKGROUND

Vancouver plays a vital role as a port city and Canada's premier Asia-Pacific gateway. Port Metro Vancouver moves $75 billion worth of goods each year to 160 countries, supporting almost 20,000 jobs in the city and close to 130,000 jobs across Canada. By 2030, container volumes are expected to increase by 70% for the two terminals within city boundaries. The Vancouver International Airport is also seeing significant growth in all sectors.

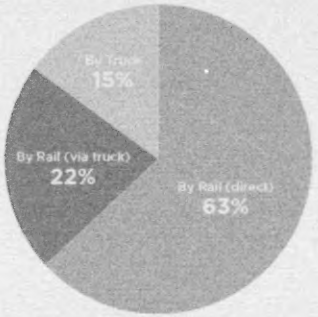
Local goods and services movement within neighbourhoods is also important to a thriving local economy and high quality of life. As the number of people living and working in the city continues to grow, the volumes of goods and service vehicles will also increase. The City can influence this level of goods movement by advocating for low-impact vehicles, and by managing on- and off-street loading spaces to ensure easy access to homes and businesses.

Patterns of production and distribution are changing, and not always in predictable ways. Changes in global supply chains—such as the opening of a new port in Asia, or port expansion in Vancouver, Prince Rupert, or California—can affect us here. So can the price of fuel, or an increase in local food production. By emphasizing strategies that reduce oil dependence and support production within the region, this plan will help local businesses succeed in a post-carbon era.

Emergency services need special consideration. It is critical that police, fire, and ambulance can reach their destinations quickly. At the same time, efforts to minimize response times should not prevent the use of measures like traffic calming that are intended to improve safety in the first place.

TRENDS AND TARGETS

The Importance of Rail for Port Activity

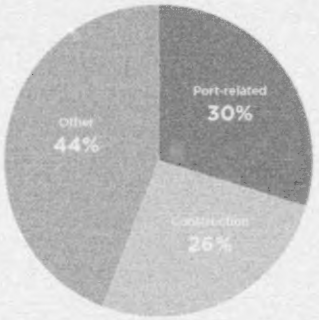


Source: Based on Transport Canada's Transload 2011 mapping study with 2009 data.

Rail is the most efficient and environmentally friendly way to move goods and people over land by long distances. Of containers leaving Port Metro Vancouver, 63% do so directly by rail, and another 22% are transferred to rail before leaving the region.

Of trucks crossing the city's boundaries, 30% are related to port activity. Construction vehicles account for 26%.

Truck Activities



Source: Based on Transport Canada, BC Ministry of Transportation, and TransLink's 2008 Dangerous Goods and Truck Classification Survey

POLICY BASIS

REGIONAL-AND-BEYOND GOODS AND SERVICES MOVEMENT
Large-scale, high-volume, long-distance goods and services movement plays an important role in the provincial and national economy.

To accommodate the expected growth in containers, the City supports shifting more long-distance, high-volume goods movement to rail, improving truck efficiency, and exploring alternatives such as short-sea shipping. Many of the biggest opportunities to reduce port-related environmental and traffic impacts lie within Port Metro Vancouver's jurisdiction.

Truck routes that directly serve the port or are part of the region's Major Road Network are especially important to the regional and national economies. The City will strive to ensure these routes are as efficient for truck movement as possible, without compromising safety for pedestrians and other road users.

The City will protect existing rail corridors and support measures to increase local and regional rail capacity and reliability. Grade separation strategies for rail create opportunities to improve walking and cycling route connectivity, particularly in the False Creek Flats area.

The City supports the Vancouver International Airport's role as the primary air gateway for passengers and cargo in BC.

LOCAL GOODS AND SERVICES MOVEMENT
Smaller-scale local goods and services movement is a key part of a thriving local economy and high quality of life. The City has more direct opportunities to influence this scale of goods movement to maximize efficiencies and reduce negative impacts on neighbourhoods.

The City will continue to provide a robust grid of truck routes that supports reliability, efficiency, and the distribution of truck traffic across multiple streets. We will also ensure access to destinations by continuing to provide and efficiently manage loading zones.

We can deliver goods and services in quieter and less polluting ways, especially in the urban environment. The City will continue to support and encourage low-carbon and electric truck fleets, and even active transportation (such as electric assist cargo bikes). Rightsizing for the job is another way to reduce neighbourhood impacts—smaller vehicles can be used for local, urban trips.

One of the best ways to reduce the negative impacts of large-scale goods movement is to minimize the need for long-distance trips. Preserving local industrial lands and supporting small-scale manufacturing, for example, help reduce the need to transport goods.

EMERGENCY RESPONSE

A combination of well-designed traffic calming, appropriately sized vehicles, and response strategies is needed to both prevent and respond to traffic collisions. For example, Vancouver's Fire and Rescue Services are adapting to the growing importance of first response over other firefighting roles by acquiring smaller, dedicated vehicles and equipment for medical response.

Bike routes and traffic calming measures can be designed to facilitate emergency access. Emergency response times suffer when service providers lack information on traffic calming measures, road closures, and other detours. Making this information more readily available can save lives.

PUBLIC COMMENT

"We commend the City's recognition of the integral role that rail plays in the movement of goods and passengers."

—public engagement participant

GOODS, SERVICES, AND EMERGENCY RESPONSE POLICIES

G1 Regional-and-Beyond Goods and Services Movement

- G1.1 Protect and improve rail corridors for goods and passenger movement
- G1.2 Support truck movement on key regional routes
- G1.3 Support Port Metro Vancouver efforts to reduce port-related environmental and traffic impacts
- G1.4 Support Vancouver International Airport as British Columbia's primary air gateway

G2 Local Goods and Services Movement

- G2.1 Maintain an efficient network of designated truck routes
- G2.2 Provide for efficient loading and unloading
- G2.3 Support low-impact goods and services movement and delivery
- G2.4 Support local production and distribution to reduce the need for large-scale transport

G3 Emergency Response

- G3.1 Consider emergency vehicle access in street designs and traffic calming measures
- G3.2 Provide up-to-date, readily accessible information on traffic calming measures and closures

HIGHLIGHTED ACTIONS

Some of the Goods, Services, and Emergency Response actions to be taken by the City:

- Implement strategies to increase capacity and reliability of rail corridors in the city
- Advocate for improvements to the regional rail network to address major bottlenecks, such as the New Westminster Rail Bridge
- Work with partners to maintain efficient goods movement on truck routes
- Support Port Metro Vancouver's efforts to improve the efficiency, safety, and environmental performance of trucks using the port
- Work with police, fire, and ambulance to maintain efficient response times

The complete list of Goods, Services, and Emergency Response actions can be found at **vancouver.ca/transportation2040**

TRUCK LICENSING SYSTEM

Vancouver is an international transportation hub, so it's not surprising that nearly one third of trucks entering the city have port-related business. Every truck accessing Port Metro Vancouver requires an approved Truck Licensing System (TLS) license.

This licensing system is used to improve operational efficiency, safety, and environmental performance for all trucks using the port. By supporting more stringent TLS requirements, we will help ensure cleaner, greener trucks on Vancouver's roads.

MOVING THE PLAN FORWARD

See these sections for how the plan is being delivered in local areas of the city:

- Rail Corridor Strategies
- Major Road Network
- Comprehensive Parking Strategy
- The Fraser River Area
- Broadway Subway
- Georgia and Dunsmuir Viaducts / Eastern Core

ENCOURAGEMENT, EDUCATION, AND ENFORCEMENT

Encourage sustainable transportation choices, educate all road users to promote safe and respectful behaviour, and support legislation and enforcement practices that target dangerous conduct.

BACKGROUND

Although much of this plan focuses on physical infrastructure, it is also important to support our long-term transportation goals through education, encouragement, and enforcement.

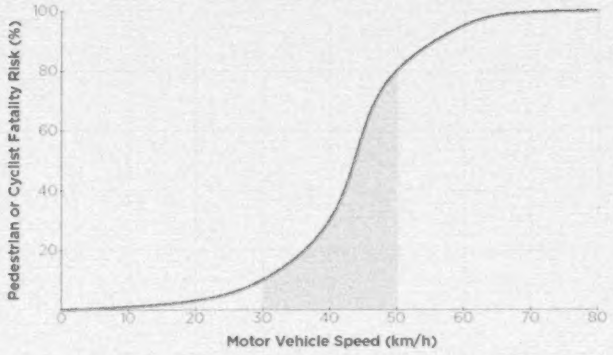
We can make the most of the infrastructure investments identified in this plan by encouraging sustainable travel choices. Promoting walking and cycling as practical, convenient, safe, and fashionable helps to build a culture where active transportation is the norm.

With more people walking and cycling for everyday transportation and recreation, many people are becoming increasingly concerned about conflicts between different road users. We need to educate more people on how to use our transportation infrastructure safely and respectfully so that everyone feels comfortable and safe regardless of how they choose to move around. Choosing one way to travel over another should not bring with it greater risk.

The City has heard requests for additional enforcement and changes to legislation to make walking and cycling easier and more comfortable. This plan calls for balanced legislation and enforcement practices that target dangerous behaviour—especially actions that endanger vulnerable road users like people walking and biking—and that cause unnecessary traffic congestion.

TRENDS AND TARGETS

Lower Speeds Reduce Risk

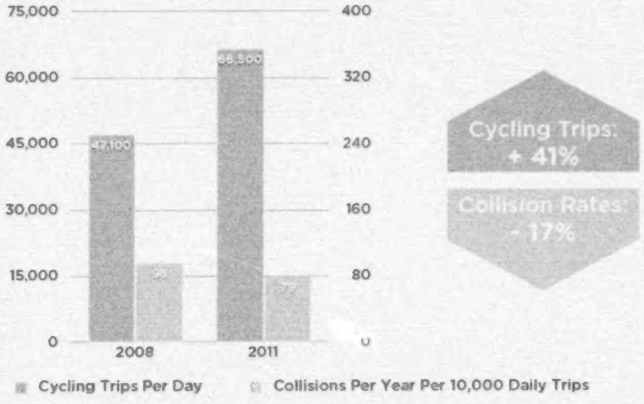


Source: Based on data from VicRoads, Australia. Found in Victorian Auditor-General's Office, "Road Safety Camera Program," 2011, http://www.audit.vic.gov.au/publications/20110831-Road-Safety-Cameras/20110831-Road-Safety-Cameras.html

Lower motor vehicle speed limits dramatically reduce the risk of death for people travelling on foot or bicycle.

Cycling becomes safer when more people bike, because drivers expect to see cyclists on the road and are more likely to look out for them.

Safety in Numbers



All numbers for the City of Vancouver. Source: Collision rates based on ICBC data averaged over 3 years (2007-2009 and 2010-2012). Data and analysis based on TransLink Trip Diaries (Fall 2008 and Fall 2011). Opinions expressed do not necessarily represent the views of TransLink.

POLICY BASIS

ENCOURAGEMENT AND PROMOTION

Vancouver is already a highly walkable city, and has made great strides recently to improve the cycling network. Even with good infrastructure in place, however, promotional programs are important to encourage active transportation as a regular part of everyday life.

Effective marketing can influence behaviour and change attitudes by strategically promoting the different aspects of travel modes that resonate with different audiences. Inspiring and light-hearted messages that highlight convenience, practicality, health benefits, and cost effectiveness can help to further build a culture of walking and cycling in Vancouver.

EDUCATION

Education and awareness programs that improve knowledge of traffic rules and promote good etiquette are essential to improving safety. Campaigns that address all travel modes can help improve interactions and foster considerate behaviour between people walking, cycling, and driving. Placing greater emphasis on vulnerable road users in driver training and testing can help increase awareness and safe driving.

The most effective way to provide cycling skills training is to incorporate it into the school curriculum. By focusing on children, we can inspire the next generation to cycle more frequently and to have a higher level of cycling

competence and awareness. Training for adults is also important, especially to people who are underrepresented in the cycling population, such as women and new Canadians.

Although educational programs are best delivered by other organizations with expertise in training cyclists, the City will continue to support these initiatives.

ENFORCEMENT AND LEGISLATION

Enforcing effective legislation can promote safe travel and ease congestion. The BC Motor Vehicle Act specifies the rules of the road for driving, cycling, and crossing streets, as well as the penalties associated with breaking those rules. Police agencies play a critical role in enforcing these laws, helping to ensure that roads are safe for everyone and that bikes and cars are protected from theft.

Enforcement and legislation should place a high priority on protecting pedestrians, cyclists, and other vulnerable road users by focusing on reducing dangerous behaviour, such as speeding, reckless driving and cycling, and failing to yield to pedestrians in marked and unmarked crosswalks.

Some behaviours may affect safety indirectly or create other impacts. For example, drivers disobeying no-stopping zones can force cyclists further into traffic, and add to overall congestion during peak periods.

Interest in Cycling

Many people are interested in cycling but are afraid of motor vehicle traffic.

Source: TransLink market research for Metro Vancouver.

ENCOURAGEMENT, EDUCATION, AND ENFORCEMENT POLICIES

E1 Encouragement and Promotion

E1.1 Promote walking and cycling as fun, practical, and healthy transportation choices

E2 Education

E2.1 Support education and awareness programs to improve safety and reduce conflicts

E2.2 Support cycling skills training to improve cyclist safety and confidence

E3 Enforcement and Legislation

E3.1 Support enforcement practices that protect vulnerable road users

E3.2 Support enforcement practices that can help to manage congestion impacts

E3.3 Support laws that protect vulnerable road users

E3.4 Work to reduce bicycle theft

PUBLIC COMMENT

"Safety and respect are important. Teaching kids to cycle early will help build a culture of good behaviour."

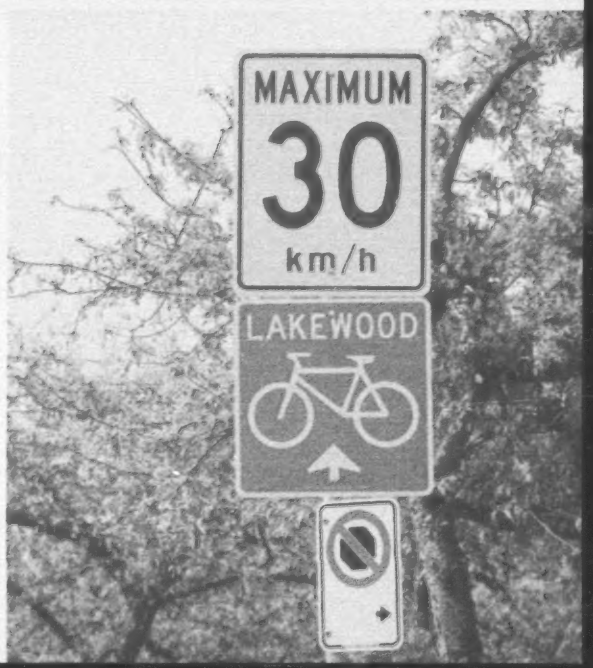
—public engagement participant

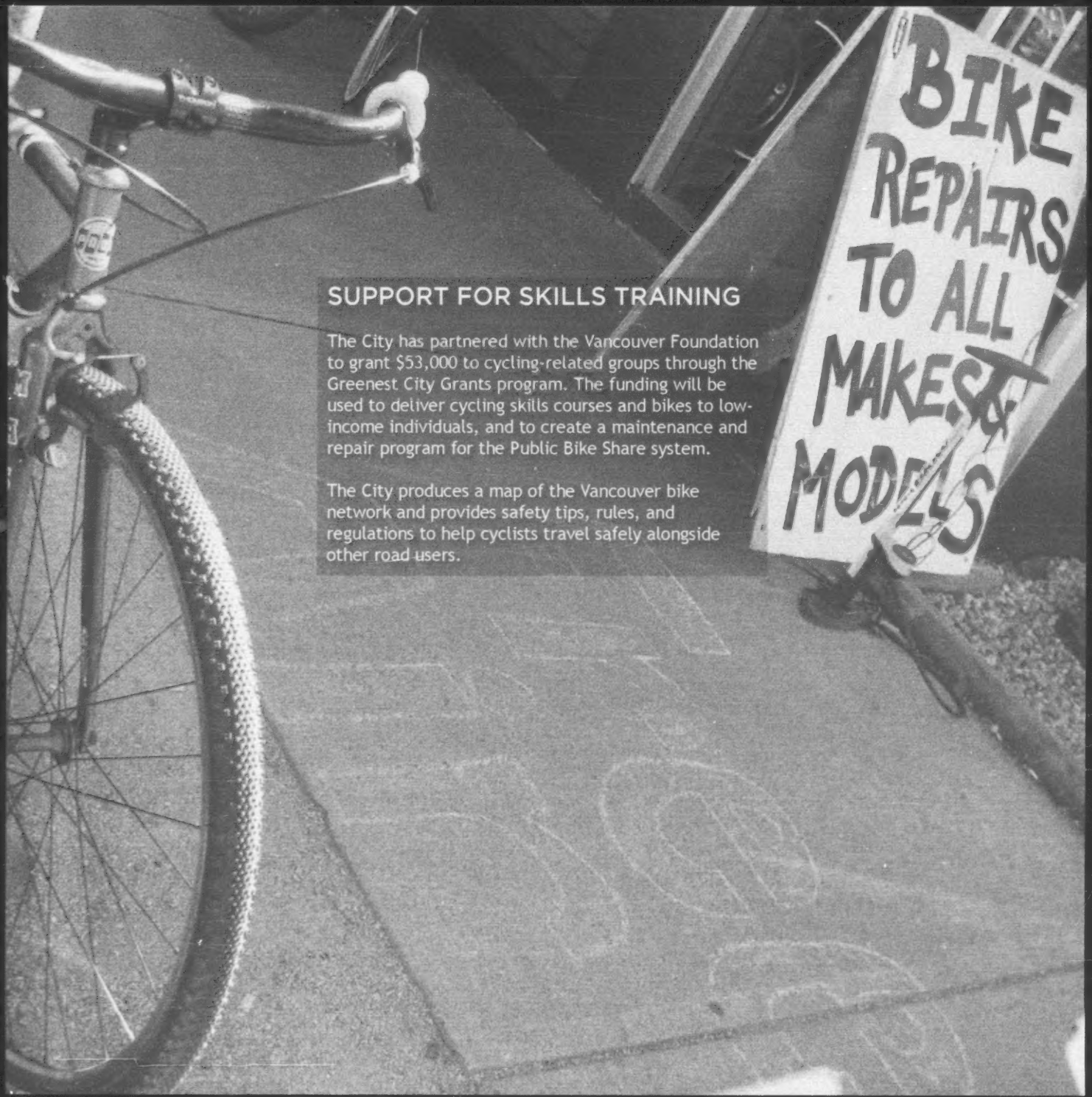
HIGHLIGHTED ACTIONS

Some of the Transit actions to be taken by the City:

- Develop and implement a program to promote walking and cycling as practical and healthy transportation choices and a normal part of everyday life
- Advocate for cycling skills training as a core part of the school curriculum
- Maintain and enforce 30 km/h speed limits on local street bike routes and greenways
- Update City bylaws and advocate for changes to the BC Motor Vehicle Act to encourage more and safer travel by sustainable modes

The complete list of Encouragement, Education, and Enforcement actions can be found at **vancouver.ca/transportation2040**





SUPPORT FOR SKILLS TRAINING

The City has partnered with the Vancouver Foundation to grant $53,000 to cycling-related groups through the Greenest City Grants program. The funding will be used to deliver cycling skills courses and bikes to low-income individuals, and to create a maintenance and repair program for the Public Bike Share system.

The City produces a map of the Vancouver bike network and provides safety tips, rules, and regulations to help cyclists travel safely alongside other road users.

"[Having more people walking] is important because business increases with increased foot traffic."

"I have cycled...just about every day for the last two years. And every time I do, I feel a special pleasure, like the city has provided me with a gift. I don't know how to express it. I really just love it and want you all to know that."

"The buses are always jam-packed on Broadway. An underground train would make such a difference!"

"Roads don't always have to focus on cars."

"We commend the City for recognizing the importance of commercial goods and services movement in supporting Vancouver's economy and role as a major port, and within a regional context, its importance to Greater Vancouver as a world transportation gateway."

"Enforcement and education needs to increase and be applied across all modes."

—public engagement participants

DELIVERING THE PLAN

IMPLEMENTATION PRINCIPLES

Many of the actions outlined in this plan will require more detailed study and consultation. Given limited resources and practical constraints, achieving our goals requires us to prioritize our efforts and explore innovative funding and design solutions. The following principles are intended to help set priorities and guide implementation of the plan.

INVEST WISELY
We will prioritize investments where the greatest benefits can be achieved. These include areas with high existing or potential use, such as major transit exchanges and high-density neighbourhoods, locations with acute problems, such as collision "hotspots," and where strategic improvements benefit a larger area, such as bridging gaps in the transit, walking, and cycling networks.

THINK BIG PICTURE
We will plan for the future, completing networks and scaling infrastructure to meet long-term demands. We will prioritize projects that achieve multiple objectives and add value beyond transportation—to public health, air quality, housing affordability, and commercial activity.

BE OPPORTUNISTIC
We will minimize costs and disruption by coordinating transportation improvements with other work projects. Whenever feasible, actions will be timed and implemented through reconstruction projects, infrastructure replacement, community plans, and new development.

INNOVATE
We will use low-cost pilot projects to test new ideas and approaches. We will embrace new transportation and information technologies that help achieve our goals and improve efficiency.

MONITOR, LEARN, AND ADAPT
We will monitor results, learn from our experiences, and adapt policies and approaches as necessary. Whenever possible, we will share data in an open format that supports third-party analysis and tool development.

WORK TOGETHER
We will collaborate with partners on projects that span municipal boundaries, have regional significance, or provide benefits that cross sectors. Research and funding partnerships will be pursued wherever possible, including with other government agencies, academic institutions, community and business groups, and private industry.

INVOLVE AND EMPOWER CITIZENS AND LOCAL BUSINESSES
We will engage with nearby residents, businesses, and other stakeholders when developing and implementing projects. Concerns and aspirations will be understood and duly considered, and engagement approaches will foster constructive dialogue, unleash creativity, and inspire positive action.

TRACKING PROGRESS

Monitoring and evaluation are essential to help us understand whether we are making progress toward our goals and generally headed in the right direction. By asking the right questions and collecting the right information, we can understand trends, respond to changing circumstances, and better predict the impacts of our investments. We will measure project impacts by collecting information before and after the project is implemented, set interim targets, and report on key progress indicators. As much as possible, we will share these results in an open format to maximize transparency and support third-party analysis and tool development.

We can learn from our experiences and adjust our actions accordingly. We will work with partners to measure progress and adapt policy and actions as necessary to stay on track. Through recent initiatives, we have begun more rigorous monitoring of infrastructure performance. This ensures accountability and responsiveness in a changing world, and helps us make sound decisions that support our long-term goals.

The plan includes a number of Monitoring actions that can be found at **vancouver.ca/transportation2040**

PARTNERSHIPS

A successful plan is only possible by working together. Partnerships are critical to achieving success, particularly in a region with 21 other municipalities, regional transportation and planning agencies, and many overlapping jurisdictions and interests.

Many organizations, such as TransLink and the provincial government, have set their own transportation targets and have developed strategies to address them. Coordination is important, and the City is working to ensure consistency with the plans and strategies of its partners.

Major partners include:

- TransLink, the regional transportation agency
- Province of British Columbia
- Transport Canada
- Metro Vancouver and neighbouring municipalities
- Vancouver Coastal Health and other health care agencies and providers
- Schools and academic institutions
- Port Metro Vancouver, a federal authority
- Vancouver International Airport, a federal authority
- Rail companies
- ICBC, the provincial auto insurance provider
- Trucking, taxi, and commercial transit providers
- Transportation non-profit organizations
- Local business and community associations
- Enforcement and emergency service providers

EMERGING AREAS OF FOCUS

Many transportation initiatives are currently underway that are based on existing Council-approved policies and support Transportation 2040 goals. This plan affirms and reinforces these initiatives, and will help ensure they are delivered in a way that is consistent with other actions.

The plan also includes many new projects, study areas, and actions that have been identified through plan development. Some are relatively quick and straightforward to implement, while others represent fundamental changes to the way the City does business. More complex actions may unfold over several years, requiring further study, public and stakeholder consultation, and future decisions by Council.

Some key initiatives and actions are highlighted in the following pages. Each one was reviewed as part of an overall framework that ensures we can meet the needs of a growing city and region for years to come. They support Transportation 2040's overarching goals for Economy, People, and Environment, and work in tandem with other city initiatives that focus on affordable housing and health, economic strategies, and Greenest City.

Artist illustration of Comox-Helmcken Greenway.

ARBUTUS CORRIDOR

GOAL FOR PEOPLE:
Create a great walking, biking, and transit greenway

OBJECTIVE

The Arbutus Corridor is an 11-kilometre stretch of land owned by Canadian Pacific Railway (CPR) that runs from near False Creek to the Fraser River. Although currently not in use, it was a busy passenger and goods movement rail corridor for many years, with some services running as recently as 2001.

Over the years, there has been strong public support to preserve the corridor for future passenger rail and active transportation use. This plan continues to consider the Arbutus Corridor as an important north-south transportation route for active transportation and transit.

STUDIES OR ACTIONS COMPLETED

In 2000, Vancouver City Council passed the Arbutus Corridor Official Development Plan, which proposed developing the corridor as a multi-use transportation and greenway corridor that includes rail, bicycle, and pedestrian use. This was challenged by CPR, who wished to develop the corridor for other purposes. The Supreme Court of Canada ruled in the City's favour in 2006.

NEXT STEPS

Transportation 2040 maintains the City's long-term transportation objective to develop the corridor as both an active transportation greenway (including high-quality walking and cycling routes) and a future streetcar or light-rail line. Since the corridor currently acts as an east-west barrier in many places, improving connectivity across the corridor will also be an important outcome of corridor development. The work requires detailed planning, and land negotiations and other uncertainties make a phased approach likely.

PUBLIC COMMENT

"Arbutus Corridor protection for future passenger rail traffic is essential."

—public engagement participant

Artist illustration of Arbutus Corridor.

RELATED TRANSPORTATION 2040 POLICIES

- W1.5 Address gaps in the pedestrian network
- W1.6 Provide a blueprint for great pedestrian realm design
- C1.1 Build cycling routes that feel comfortable for people of all ages and abilities
- C1.2 Upgrade and expand the cycling network to efficiently connect people to destinations
- T1.1 Advance new and improved rapid transit
- T1.2 Advance new and improved local transit

BROADWAY SUBWAY

GOAL FOR ECONOMY:
Unlock the region's largest transit bottleneck

OBJECTIVE

Fast, frequent, reliable, high-capacity transit is essential to attract new riders and meet mode share targets. Encouraging more people to shift away from the private automobile requires transit that competes favourably with driving in terms of speed, convenience, comfort, and reliability. High-capacity rapid transit in the Broadway Corridor is the City's top transit priority.

Broadway is a regionally important corridor. Stretching from Commercial Drive to UBC, it is already home to over 85,000 people and 100,000 jobs, and is expected to grow significantly over the coming decades. It includes key regional destinations including Central Broadway—the province's largest employment centre after Downtown Vancouver, where half of all employees commute from outside city limits—and the province's largest hospital and largest university.

Significant new service is required to meet existing demand. There are over 110,000 transit trips made on Broadway buses every day, making it one of the busiest bus corridors in North America. Buses are overcrowded and beyond capacity for most of the day. Even with B-Line services running every 2 to 3 minutes and trolley services providing additional capacity, thousands of waiting passengers are left behind daily. Travel times are also unpredictable, varying from 25 to 45 minutes, discouraging transit use.

Rail-based underground rapid transit through at least the Central Broadway area is the only option that supports the City's vision for the corridor and meets the long-term transit service requirements. Underground rapid transit service provides for higher capacity, speed, frequency, and reliability. By freeing up road space, it ensures that local transit and existing active transportation connections can be maintained, and creates opportunities to allocate more room for other uses such as wider sidewalks, public spaces, more street trees and landscaping, bike lanes, and all-day parking.

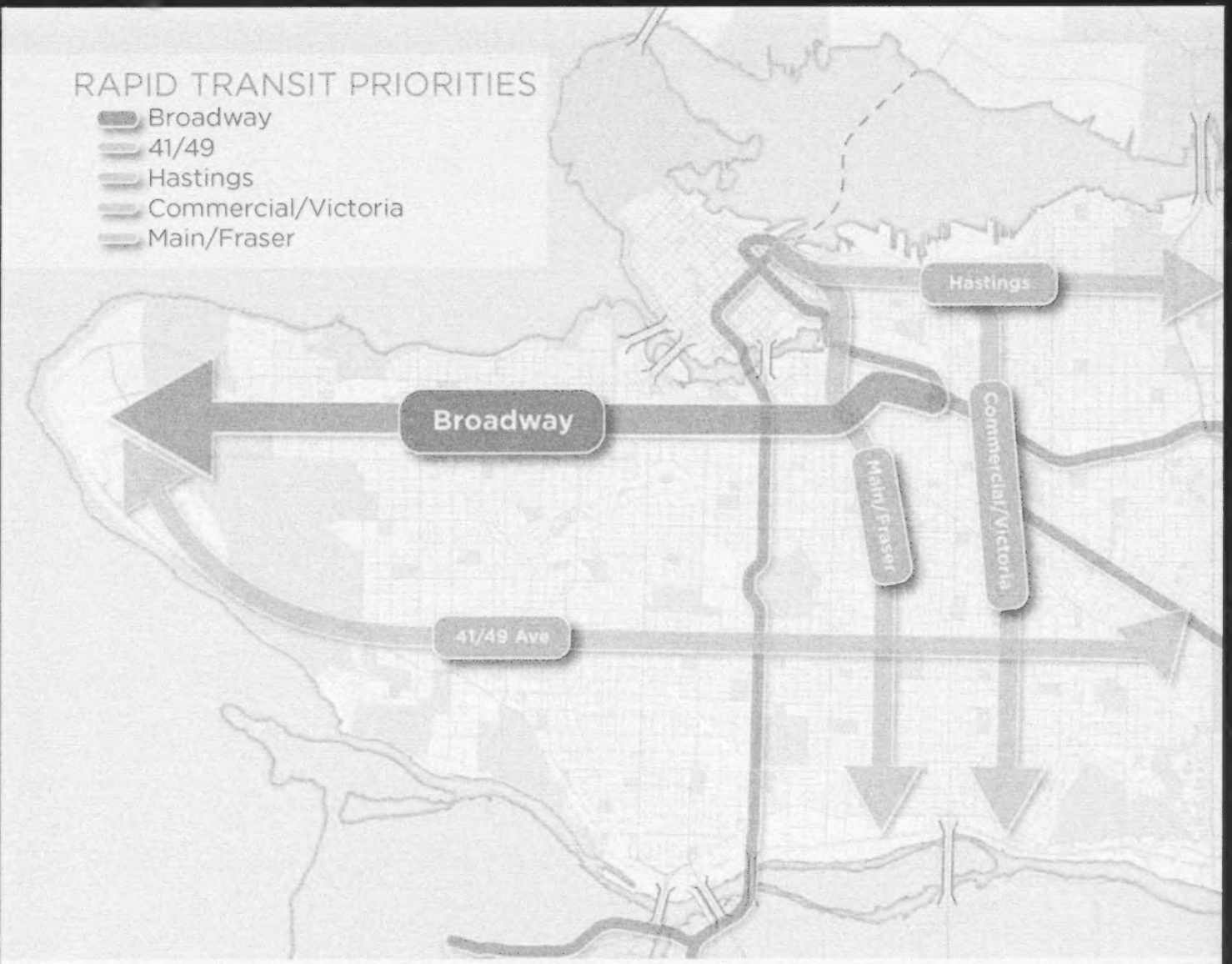
STUDIES OR ACTIONS COMPLETED

In 1999, TransLink and the City of Vancouver jointly funded and directed a study exploring rapid transit options in the corridor. Options were compared using a number of factors, including customer service, cost effectiveness, and environmental and community impacts. Based on the study results, the City and TransLink recommended that the Millennium SkyTrain Line be extended in an underground tunnel west to Central Broadway, with a rapid bus connection to UBC.

Since then, ridership in the corridor has grown even faster than expected, due to job and population growth on the corridor, innovative programs such as U-Pass, and overall regional transit growth. A new study was launched in 2009 to explore various options for improving transit services in the Broadway Corridor between Commercial Drive and UBC. The study is being co-managed by the Province and TransLink, with the City of Vancouver involved as one of five partner agencies.

NEXT STEPS

The City will continue to work with partners to plan and deliver a reliable high-capacity rapid transit solution for the corridor to support long-term goals. We will continue to explore and advocate for new funding sources and plan for potential future stations and alignments. Since it will take several years to deliver the project, we are also working with TransLink to plan for interim capacity improvements. The Broadway Corridor is highlighted on the following map.



RELATED TRANSPORTATION 2040 POLICIES

L1.1 Prioritize and encourage a dense and diverse mix of services, amenities, jobs, and housing types in areas well served by frequent, high-capacity transit

T1.1 Advance new and improved rapid transit

T6.1 Support stable and equitable long-term transit funding sources

BURRARD INLET CROSSINGS

GOAL FOR ENVIRONMENT:
Optimize the use of existing infrastructure

OBJECTIVE

An agreement exists to remove private automobile traffic from the Stanley Park Causeway and Lions Gate Bridge by 2030. However, the agreement specifies that this action would take place together with the development of a third Burrard Inlet crossing. Since there is currently no such plan for a third crossing, the City will work with partners to determine whether this agreement should be rescinded, and if there are any other appropriate actions for this regional issue.

STUDIES OR ACTIONS COMPLETED

In 2000, an agreement was reached between the BC Transportation Financing Authority, the Insurance Corporation of BC, TransLink, the City of Vancouver, and the Vancouver Board of Parks and Recreation. The agreement committed each party to the long-term objective to remove private automobile traffic from the Stanley Park Causeway and Lions Gate Bridge by 2030, and reconfigure the causeway and bridge as either a dedicated transit, cycling, and pedestrian route or return it to park use. The agreement instructs that this action would take place together with the development of a new Burrard Inlet crossing that matches the aspirations of the communities it would connect.

This agreement was part of a larger contract in the early 2000s that widened and altered road alignments in Stanley Park. The agreement to remove private automobile traffic was intended to address the negative impacts of causeway traffic on park users, and to encourage more environmentally friendly means of transportation.

Since the agreement was completed, significant public investments have been made in road, transit, and cycling infrastructure at both ends of the Lions Gate Bridge and on the bridge itself. The interchange at the north end of the bridge was completely replaced, for example, and now includes queue jumpers that give transit vehicles priority access to the bridge.

NEXT STEPS

There are currently no new crossings being contemplated by local, regional, or provincial governments, and future conditions may warrant alternative approaches. The North Shore municipalities want to partner on a review of all possible options (including maintaining things as they are) and a wider study of transportation needs that includes movement of goods and services along the Burrard Inlet. The City will work with the partners of the agreement, as well as Port Metro Vancouver and North Shore municipalities, to determine the appropriateness of any actions on this regional issue.

RELATED TRANSPORTATION 2040 POLICIES

- W1.5 Address gaps in the pedestrian network
- C1.1 Build cycling routes that feel comfortable for people of all ages and abilities
- C1.4 Make the cycling network easy to navigate
- T1.4 Support increased water-based transit
- T1.5 Support improved interregional transit
- G1.2 Support truck movement on key regional routes
- G1.3 Support Port Metro Vancouver efforts to reduce port-related environmental and traffic impacts

COMPREHENSIVE PARKING STRATEGY

GOAL FOR ECONOMY: Reduces the cost of development and improves affordability

OBJECTIVE

By effectively managing parking, the City can support more sustainable transportation choices like walking, cycling, transit, and car sharing. We can significantly reduce housing and business costs by separating out parking costs so that people only pay for what they need. We can improve neighbourhood livability by better managing on-street parking, especially where use of the street is in high demand, and support local businesses and reduce congestion by making it easier for customers and delivery drivers to find an available space.

This plan includes a number of directions related to parking supply, management, and design. The directions address a broad range of interconnected parking elements that are intended to support each other and should therefore be considered as a complete package.

STUDIES OR ACTIONS COMPLETED

The City routinely reviews the parking bylaw and development requirements to keep parking requirements up to date. Parking permit areas are routinely expanded, and pay meter rates are regularly adjusted to ensure high turnover so that drivers can find parking when they need it. Special use zones for taxis, commercial vehicles, passenger drop-off, and car sharing are continually being reviewed.

NEXT STEPS

The package of parking directions in this plan will address the needs of busy commercial areas and residential districts, for on-street and off-street parking. City staff will review existing policies to ensure they align with Transportation 2040 and other key City objectives. Emerging technology and ideas, such as smart parking meters and car sharing, may lead to entirely new approaches in parking management.

RELATED TRANSPORTATION 2040 POLICIES

- M2.1 Use off-street parking requirements to support reduced auto ownership and use
- M2.2 Support strategies that reduce the need for parking
- M2.3 Separate parking and housing costs to increase housing affordability
- M2.4 Approach parking as a shared district resource
- M2.5 Design parking to be flexible and adaptable
- M2.6 Make it easier for drivers to find available parking spaces
- M2.7 Manage parking in neighbourhoods
- M2.8 Provide accessible parking for persons with disabilities
- M2.9 Support cycling, low-carbon vehicles, and car sharing
- M2.10 Support efficient loading and servicing

CYCLING NETWORK

FOR ALL AGES AND ABILITIES (AAA)

GOAL FOR PEOPLE:
Facilitate and encourage active, healthy lifestyles

OBJECTIVE

This plan aims to make cycling safe, convenient, comfortable, and fun for people of all ages and abilities. To achieve this, it is essential to improve and expand the existing network with low-stress, high-quality bike routes.

Building a complete network cannot happen overnight, so the plan calls for short-term implementation plans that will be regularly updated in consultation with stakeholders. In general, priority will be given to routes with the highest existing or potential demand, critical gaps in the network, high collision areas, and connections to key destinations such as schools, community centres, major transit stations, and commercial high streets. The City will also expand the network elsewhere as opportunities arise through construction. Route directness and topography are important factors to be considered.

STUDIES OR ACTIONS COMPLETED

Research at UBC has confirmed that many more people would consider cycling for their daily needs if more routes were protected from high traffic volumes and speeds.

The City has long been developing a bicycle network that is designed for people of all ages and abilities, beginning with the Seawall around Stanley Park and False Creek. More recently, we have focused effort on developing a network of designated bicycle routes on local streets, many of which are comfortable for most people. However, some of these routes have high traffic volumes.

Recent development of the Downtown separated bicycle lanes on Burrard Bridge, Hornby Street, and Dunsmuir Street and viaduct has brought routes into the downtown peninsula that are comfortable for people of all ages and abilities.

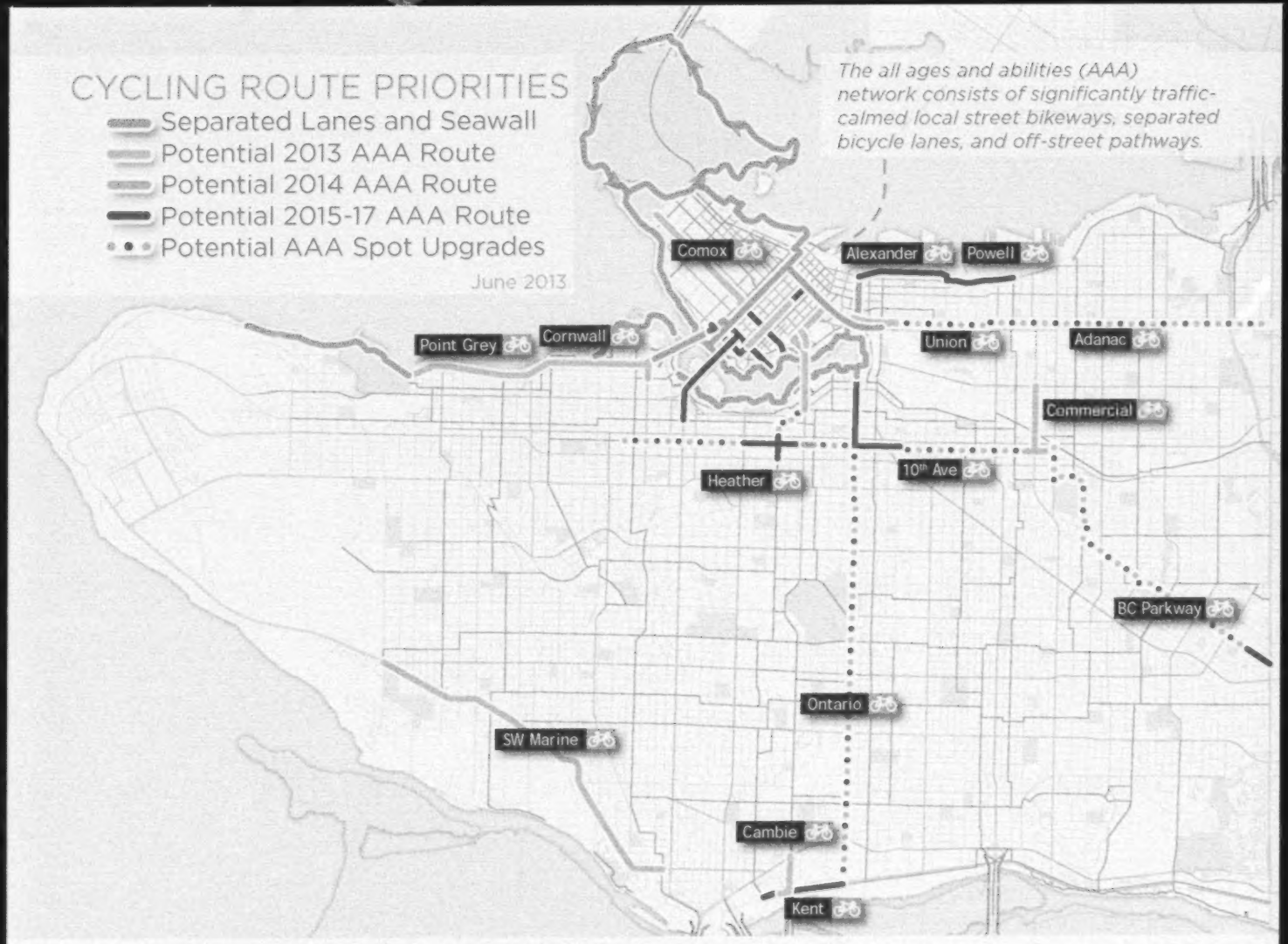
NEXT STEPS

The first short-term implementation plan is shown on the following map. These routes have been selected for a number of reasons.

The Point Grey-Cornwall corridor addresses a critical gap in the existing all ages and abilities (AAA) Seawall network, and improves commuter cycling connections to the Burrard Bridge. The Commercial Drive corridor serves an area with some of the highest existing and potential bicycle ridership, and would serve a busy commercial high street with many important destinations. Both of these routes have been identified in previous plans, and address some of the highest collision locations.

Other near-term locations identified on the map include spot improvements to the Adanac Bikeway, which is one of our busiest bike routes and connects to the downtown AAA network, and to SW Marine Drive, which is an opportunity because of other work taking place in the area. The Comox-Helmcken Greenway connects Stanley Park to False Creek and will fill an important east-west gap in the downtown active transportation network.

In all cases it is important to consider other street functions and neighbourhood needs, and to tie the work into other plans that are currently in development. The City will undertake a rigorous analysis, consider alternative routes that meet project objectives, and consult with residents and other stakeholders before returning to Council with detailed recommendations for approval.



RELATED TRANSPORTATION 2040 POLICIES

- W1.1 Make streets safer for walking
- W1.2 Provide generous, unobstructed sidewalks on all streets
- W1.3 Make streets accessible for all people
- C1.1 Build cycling routes that feel comfortable for people of all ages and abilities
- C1.2 Upgrade and expand the cycling network to efficiently connect people to destinations
- M1.2 Consider impacts to transit, commercial vehicles, and general traffic flow prior to reallocating road space
- M1.3 Manage traffic to improve safety and neighbourhood livability
- G2.2 Provide for efficient loading and unloading

FALSE CREEK BRIDGES

GOAL FOR ECONOMY:
Support a growing downtown

OBJECTIVE

The False Creek bridges can be difficult and unpleasant to cross on foot or bike. All three bridges have challenges:

- Granville Bridge sidewalks are narrow and uncomfortable, and inaccessible for many people due to steps at ramp crossings. Motor vehicles travel at high speeds and there are no cycling lanes on the bridge. Off-ramps that were designed to accommodate high-speed traffic create connectivity challenges at either end of the structure.
- Cambie Bridge has a wide multi-use path on the east side with two-way bicycle and pedestrian traffic, which gets very busy and has many user conflicts. The west side has a narrow pedestrian path and does not accommodate cyclists. Southbound connections for cyclists are especially poor.
- Burrard Bridge was retrofitted with significant cycling improvements in 2009, and bicycle ridership has climbed as a result. However, pedestrians no longer have legal access on the east side.

This plan includes actions to address key gaps in the walking network, and to provide comfortable cycling facilities to accommodate people of all ages and abilities.

STUDIES OR ACTIONS COMPLETED

Recommendations to improve conditions for walking and cycling have been part of previous plans and studies, but the options proved too costly. Fortunately, motor vehicle volumes across all three bridges are declining, and underused road space could be used to improve conditions for walking and cycling at relatively low cost.

The opportunity is particularly striking for the eight-lane Granville Bridge. Constructed in the 1950s to accommodate high-speed roads that were never built, the bridge's full capacity cannot be filled with traffic from the existing road network. Granville Bridge's per lane motor vehicle volumes are especially low.

NEXT STEPS

City staff are developing conceptual designs and an implementation strategy to improve all three False Creek bridges and their connections to the surrounding walking and cycling network. These improvements will be coordinated with other construction and maintenance plans. The process will include public and stakeholder consultation, with detailed recommendations referred back to Council.

Artist illustration of Granville Bridge with two centre lanes reallocated for walking and cycling.

RELATED TRANSPORTATION 2040 POLICIES

- W1.1 Make streets safer for walking
- W1.2 Provide generous, unobstructed sidewalks on all streets
- W1.3 Make streets accessible for all people
- W1.5 Address gaps in the pedestrian network
- C1.1 Build cycling routes that feel comfortable for people of all ages and abilities
- C1.2 Expand the cycling network to efficiently connect people to destinations
- M1.2 Consider impacts to transit, commercial vehicles, and general traffic flow prior to reallocating road space

FRASER RIVER AREA

GOAL FOR ENVIRONMENT:
Provide access to nature and improve natural shoreline

OBJECTIVE

This plan identifies the city's southern edge as a complex area requiring further study. The industrial land south of Marine Drive is important to the region, but feels disconnected from the rest of the city due to busy arterials, rail tracks, and limited connectivity for pedestrians and cyclists. Much of the shoreline is a working riverfront, but the river also serves as critical natural habitat for fish, birds, and wildlife, and its stewardship is vital to a much larger bioregion.

STUDIES OR ACTIONS COMPLETED

Kent Avenue has been developed as an important east-west bikeway between Ontario Street and Boundary Road. A portion of the Kent Bikeway is being upgraded through redevelopment of East Fraserlands.

In 2009, the Canada Line was completed between Vancouver and Richmond. The bridge over the Fraser River includes a walking-cycling structure, which has increased walking and cycling demands at the south end of Cambie Street, including routes parallel to the river.

NEXT STEPS

The Fraser River area provides multiple challenges for the City. We must protect and enhance regionally important industrial land, improve access to the water and provide community amenities, maintain and restore the local ecosystem, and also improve walking, cycling, transit, and goods movement connections to and through the area.

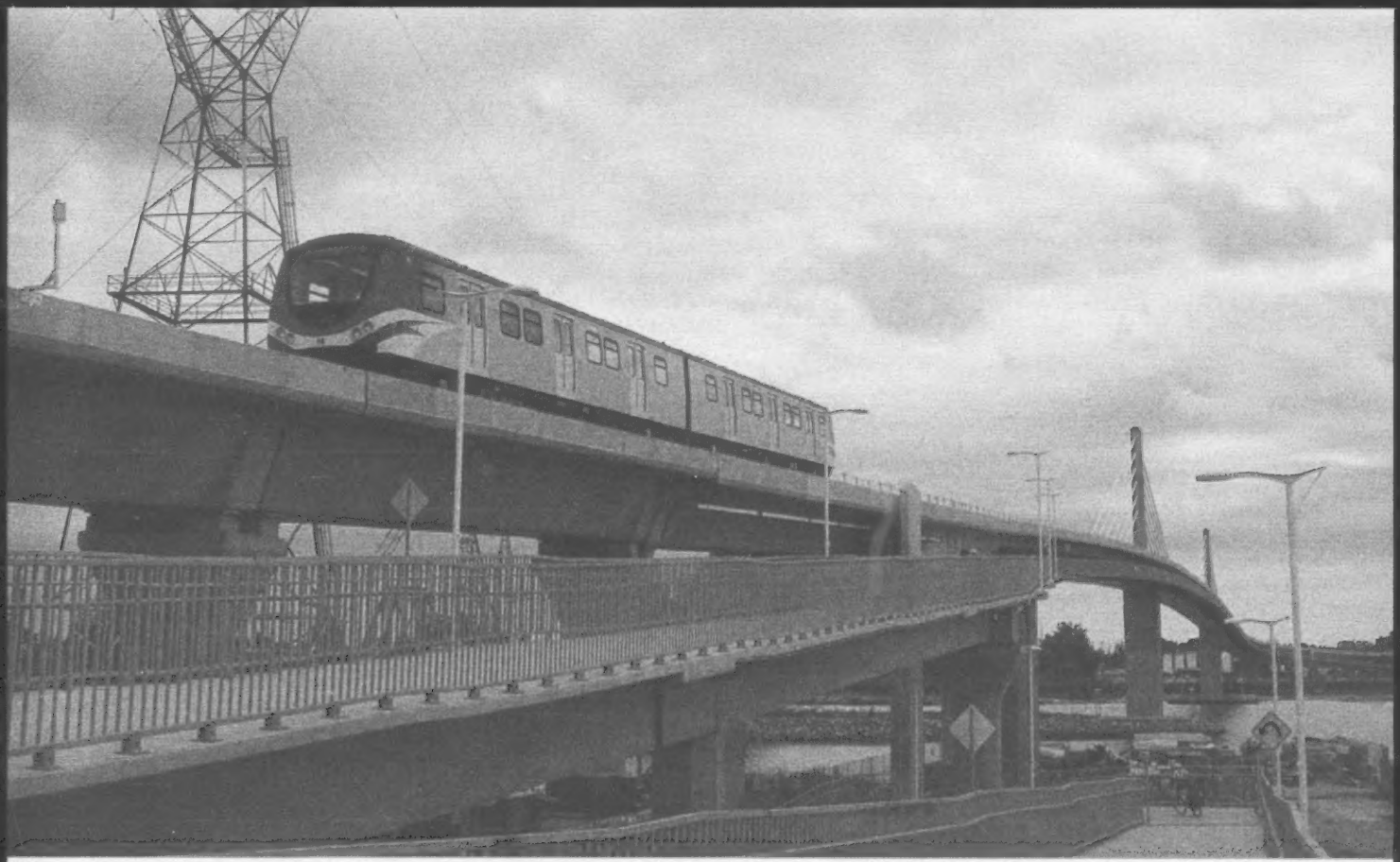
Specific transportation objectives include developing near- and long-term visions for an active transportation greenway and transit corridor along the riverbank, and improving walking and cycling network connectivity to residential neighbourhoods north of SE Marine Drive. The City will review long-term needs for freight and passenger rail movement, and explore the potential for water transit, including docking facilities.

Projects in the Fraser River area will complement regional initiatives such as Metro Vancouver's Experience the Fraser, which will bring together existing points of interest and features along the river. This initiative will extend to the North Arm of the Fraser in the future.

PUBLIC COMMENT

"The Fraser River should be seen as a future passenger ferry gateway in the Metro Vancouver area."

—public engagement participant



RELATED TRANSPORTATION 2040 POLICIES

- W1.1 Make streets safer for walking
- W1.3 Make streets accessible for all people
- W1.5 Address gaps in the pedestrian network
- C1.1 Build cycling routes that feel comfortable for people of all ages and abilities
- C1.2 Upgrade and expand the cycling network to efficiently connect people to destinations
- T1.2 Advance new and improved local transit
- T1.4 Support increased water-based transit
- M1.1 Optimize network operations to manage congestion impacts
- M1.2 Consider impacts to transit, commercial vehicles, and general traffic flow prior to reallocating road space
- G1.1 Protect and improve rail corridors for goods and passenger movement
- G2.4 Support local production and distribution to reduce the need for large-scale transport

GEORGIA AND DUNSMUIR VIADUCTS/EASTERN CORE

GOAL FOR ECONOMY: Improve downtown connections and create new neighbourhoods

OBJECTIVE

The viaducts are two elevated roadways connecting the False Creek Flats area to Downtown. Originally built in 1915 to bypass the tidal waters, rail lines, and industry below, they were rebuilt in the 1960s as the first step in a proposed freeway system that was abandoned after public opposition. Land use around these structures has changed a lot since then, leaving the viaducts as an isolated stretch of freeway connected at both ends to an urban street network. They are more expensive to maintain than ground-level roads, they divide historic neighbourhoods from False Creek, and they occupy two blocks of centrally located land.

STUDIES OR ACTIONS COMPLETED

City staff, working in collaboration with a team of urban designers, landscape architects, transportation and structural engineers, and cost consultants, developed a concept for the area that identified key opportunities. The proposal is to remove the viaducts and replace them with an at-grade road network, which repairs a major gap in the city's urban fabric, improves walking and cycling connections, creates new parks and open space opportunities, and generates nearly seven acres of developable land for housing—including affordable housing. Significant work has been done to ensure that effective transportation routes to and from the downtown core remain for people and goods movement. The conceptual planning and transportation analysis of this phase of work was shared widely with the public.

NEXT STEPS

The next step is to complete an area planning exercise for the viaducts that includes the surrounding Northeast False Creek lands, in parallel with work on the Eastern Core/False Creek Flats. Northeast False Creek/Viaducts area planning will focus on imagining a future with an at-grade road network that replaces the viaducts, and will explore what landowner agreements and financial strategies are necessary to make it a reality. The Eastern Core Strategy seeks to improve transportation connectivity in the broader area for all modes, while enhancing industrial and commercial activity. These area plans are anticipated to take up to two years to complete, and will include extensive consultation with stakeholders, including residents from adjacent communities, prior to Council making a final decision on the future of the viaducts.

Artist illustration of viaducts removal concept.

RELATED TRANSPORTATION 2040 POLICIES

W1.1 Make streets safer for walking
W1.5 Address gaps in the pedestrian network
W1.6 Provide a blueprint for great pedestrian realm design
W2.2 Create public plazas and gathering spaces throughout the city
C1.1 Build cycling routes that feel comfortable for people of all ages and abilities
C1.2 Upgrade and expand the cycling network to efficiently connect people to destinations
T1.5 Support improved interregional transit
M1.2 Consider impacts to transit, commercial vehicles, and general traffic flow prior to reallocating road space
M1.3 Manage traffic to improve safety and neighbourhood livability
G1.1 Protect and improve rail corridors for goods and passenger movement
G2.1 Maintain an efficient network of designated truck routes
G2.3 Support low-impact goods and services movement and delivery
G2.4 Support local production and distribution to reduce the need for large-scale transport

MAJOR ROAD NETWORK

GOAL FOR ECONOMY:
Help maintain the function of key regional routes

OBJECTIVE

The Major Road Network (MRN) is a designated network of arterial streets that is important to regional transportation for supporting goods movement, transit services, and traffic movement. The network spans Metro Vancouver and is jointly managed and maintained by TransLink and the municipalities. Modifications to the MRN, such as signal installations and left-turn bays, are eligible for cost-shared funding from TransLink. This plan identifies the City's desire to include additional roads in the designated MRN.

STUDIES OR ACTIONS COMPLETED

The original MRN was designated based on a set of criteria that considered traffic, transit, and goods movement volumes. However, TransLink is currently reviewing the criteria for designation of major roads as part of the MRN.

Several of the city's major roads are part of the regional MRN, including Broadway, 41st Avenue, Granville Street, Oak Street, Cambie Street, and Knight Street, among several others.

NEXT STEPS

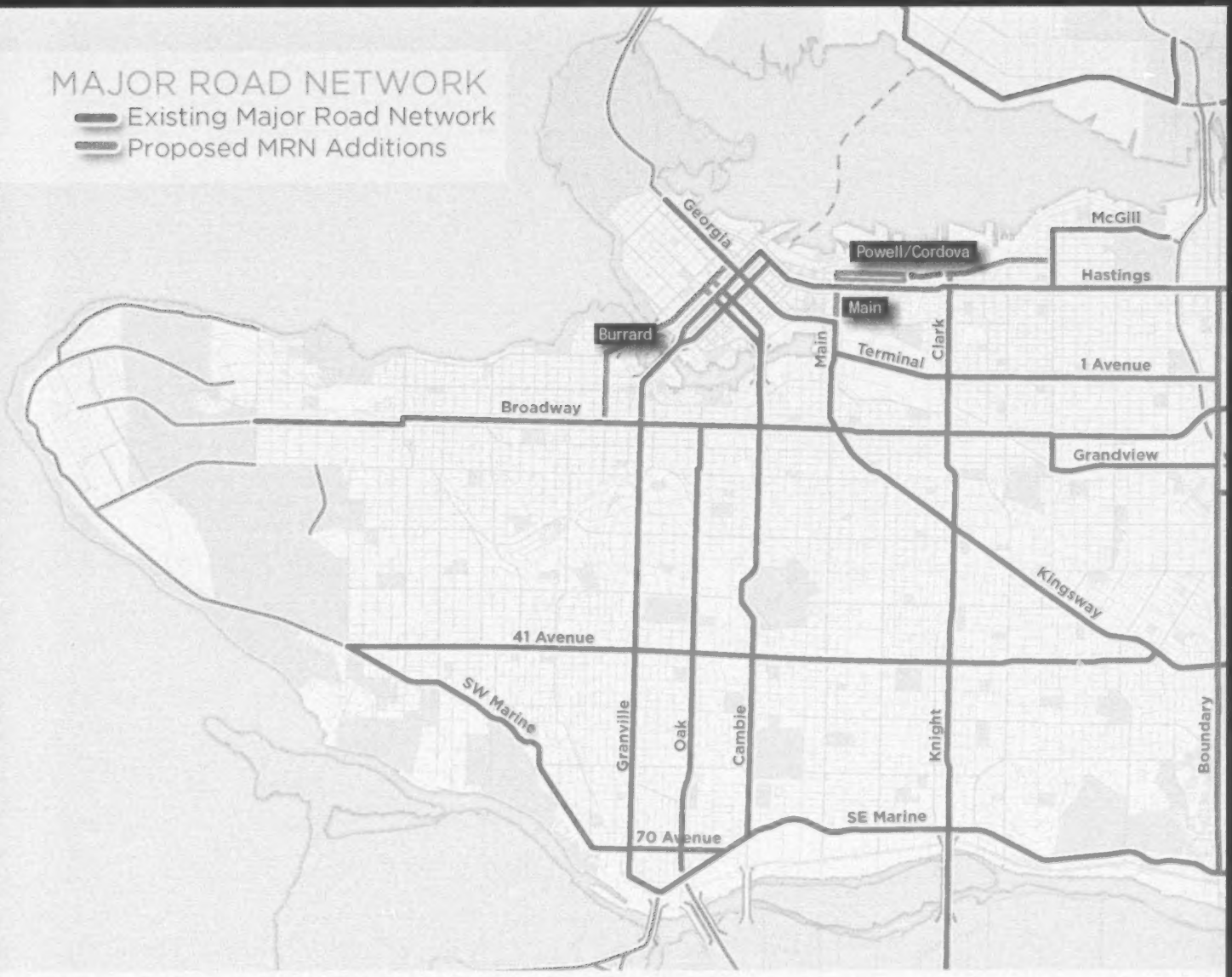
Transportation 2040 emphasizes the economic importance of the MRN in supporting national, regional, and local goods movement, as well as critical transit corridors. The plan identifies potential additions to the MRN that support goods and transit movement within Vancouver, to be discussed with TransLink. These are shown on the following map, and include portions of Burrard, Main, and Powell/Cordova (to connect the planned Powell Street Overpass, already approved as part of the MRN).

The City will work with TransLink and other partners to ensure these routes continue to function effectively as key regional transportation corridors. An additional level of review will take place prior to making changes on these routes, to ensure they continue to function effectively for transit, goods movement, and motor vehicles, and that people-moving capacity is maintained or increased.

PUBLIC COMMENT

"We commend the City's commitment to support port-related truck movements on key regional routes, and more generally, to maintain an efficient network of designated truck routes for local and regional goods movement."

—public engagement participant



RELATED TRANSPORTATION 2040 POLICIES

- T5.2 Maintain transit streets to a high standard
- M1.1 Optimize network operations to manage congestion impacts
- M1.2 Consider impacts to transit, commercial vehicles, and general traffic flow prior to reallocating road space
- M1.3 Manage traffic to improve safety and neighbourhood livability
- G1.1 Protect and improve rail corridors for goods and passenger movement
- G1.2 Support truck movement on key regional routes
- G2.1 Maintain an efficient network of designated truck routes

PUBLIC BIKE SHARE

GOAL FOR ENVIRONMENT:
Extend transit and encourage people to cycle

OBJECTIVE

Public bike share (PBS) provides a convenient, comfortable, flexible, and affordable cycling option to residents and visitors. Bike stations are located every few blocks throughout the service area. Subscribers can quickly and easily rent a bike and helmet from any station and return them to another location at the end of their journey.

In addition to providing people with a healthy transportation option, PBS has been shown to extend the reach of walking and transit trips, and reduce the need for driving. It has mainstream appeal and will encourage more people to cycle. There is strong evidence that PBS is extremely safe and increases overall cycling activity, even among people who own bikes.

STUDIES OR ACTIONS COMPLETED

PBS was a popular idea in the Greenest City and Transportation 2040 consultation processes, and emerged as a key Greenest City Green Transportation action item.

TransLink previously completed a regional PBS feasibility study and concluded that the Metro Core area is ready for such a system as an extension of the transit system. However, TransLink has been unable to pursue this at a regional level.

Council has directed staff to pursue implementation of a PBS system. Through a procurement process, the City has identified Alta Bicycle Share as the preferred owner and operator, and PBSC (BIXI) as the equipment supplier.

NEXT STEPS

The City continues to negotiate with Alta Bicycle Share. Once Alta confirms their required sponsorship and lending agreements, the City will enter into a contract with Alta to own and operate the system in Vancouver. After an initial testing phase, the program is expected to launch in the spring of 2014 with 1,500 bikes and 125 stations in the Metro Core area (the downtown core plus surrounding area bounded by Arbutus Street to the west, 12th Avenue to the south, and Main Street to the east). Future expansion to other areas of the city is possible.

RELATED TRANSPORTATION 2040 POLICIES

C3.1 Make it easy to combine cycling with other forms of transportation

C3.2 Provide a public bicycle system

PUBLIC COMMENT

"The public bike sharing program in Vancouver is a huge opportunity for business and retail."

—public engagement participant

BARCLAY

RAIL CORRIDOR STRATEGIES

GOAL FOR ECONOMY:
Support Vancouver's role as a trade gateway to Canada

OBJECTIVE

Rail corridor strategies are an important component of Transportation 2040 to support Vancouver's role as a major port and gateway, and to maximize the opportunities to move goods and people by rail.

Rail is the most efficient and environmentally friendly way to move goods and people over long distances. Rail corridor strategies will improve the capacity and efficiency of the rail network, provide opportunities for better connections along and across tracks, and improve pedestrian, cycling, transit, and vehicle movement and safety. They can also explore approaches to overcome the physical and psychological barrier often created by major rail corridors in neighbourhoods.

STUDIES OR ACTIONS COMPLETED

To date, the City has completed one rail corridor strategy, which is beginning to be implemented. The False Creek Flats Rail Corridor Strategy (FCFRCS) includes plans for developing several overpasses and closing several ground-level crossings along the Burrard Inlet Rail Line. Transportation 2040 supports this strategy, while noting that details on walking, cycling, and neighbourhood circulation will need to be refined through design and consultation as projects move forward.

The Powell Street Overpass is the first project within the FCFRCS to get underway. City staff have consulted with partner organizations, stakeholders, and the public to finalize project details. Construction will commence in the summer of 2013.

NEXT STEPS

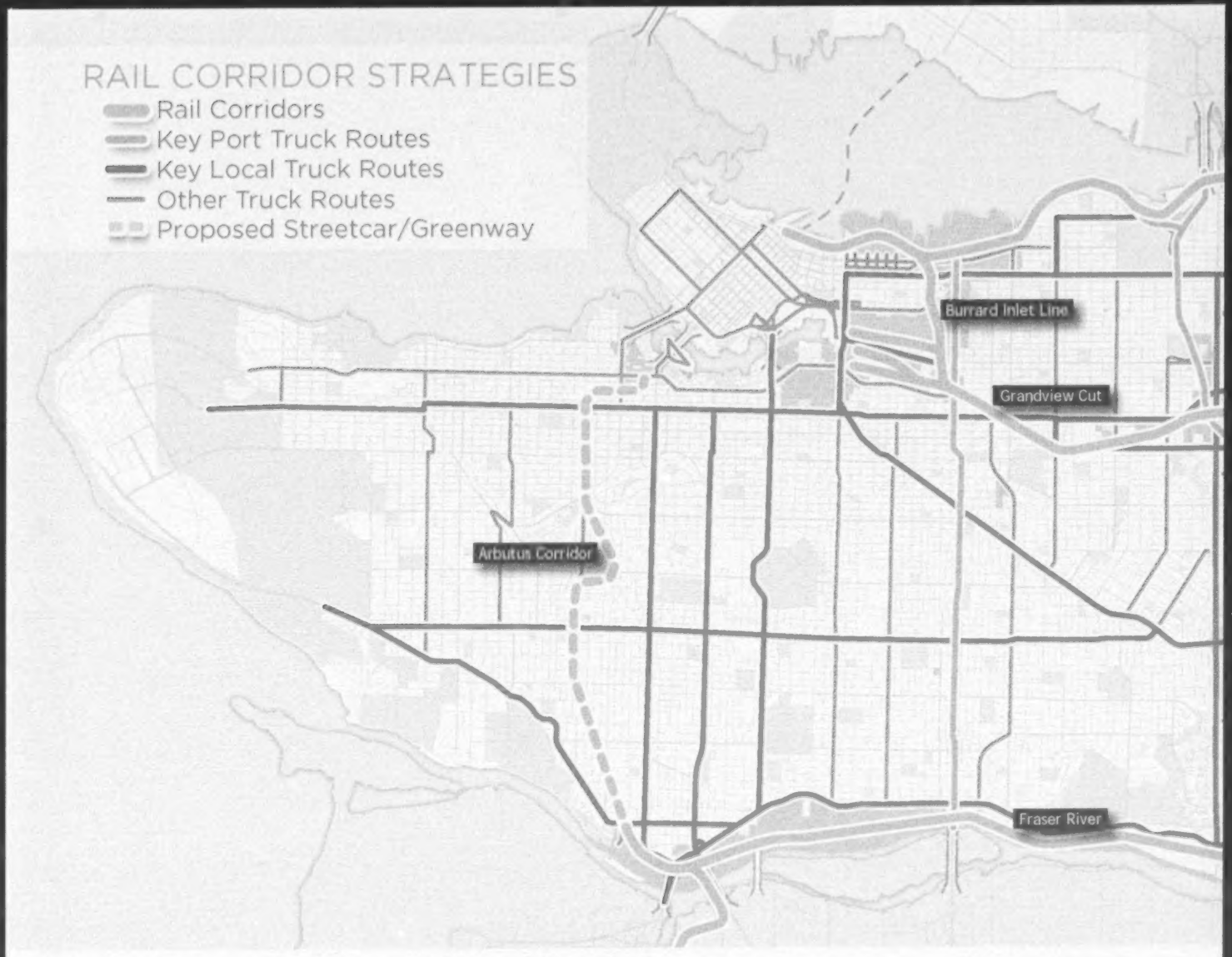
Future components of the Burrard Inlet Line are subject to further planning consultation and capital funding, but may include:

- Malkin Street Overpass, to extend Malkin Street to Clark Drive at Charles Street. The overpass would include a walking and cycling connection.
- Central Valley Greenway (CVG) Overpass. This is a walking and cycling bridge over the Burrard Inlet Line to better connect the existing CVG to the False Creek Flats area.
- Closure or realignment of several local industrial streets (Cordova, Raymur, Parker, Glen) to improve rail reliability.
- Union Street Overpass or Prior/Venables Underpass, to provide rail priority while maintaining an important connection for the Adanac Bikeway.

The Grandview Cut is an east-west corridor running from Clark Drive to Boundary Road, with numerous arterial and local street crossings at ground level, and the Millennium SkyTrain line above. A future rail corridor strategy will consider ways to protect rail capacity while improving active transportation, transit, and motor vehicle movement and safety, and also connecting local neighbourhoods across the cut.

See the Arbutus Corridor and the Fraser River Area for information on these corridor areas.

The following map highlights key rail corridors for goods and services movement within Vancouver.



RELATED TRANSPORTATION 2040 POLICIES

W1.5 Address gaps in the pedestrian network

C1.2 Upgrade and expand the cycling network to efficiently connect people to destinations

T1.5 Support improved interregional transit

M1.1 Optimize network operations to manage congestion impacts

G1.1 Protect and improve rail corridors for goods and passenger movement

SEAWALL IMPROVEMENTS

GOAL FOR PEOPLE:
Provide access to a world-class waterfront

OBJECTIVE

Both residents and visitors cherish Vancouver's system of waterfront walking and cycling paths. Many locations, particularly older stretches with only one shared surface, suffer from uneven surfaces, overcrowding, corners with poor visibility, and a high number of conflicts. Over the long term, the City will work to improve older segments of the Seawall to separate users, provide more space where feasible, reduce conflicts, and ensure an even, comfortable walking and riding surface.

STUDIES OR ACTIONS COMPLETED

Over the years, new additions to the Seawall have been built to progressively higher standards, and the paths are often filled with people on foot and bicycle, as well as in-line skates, skateboards, and other mobility aids. Recently completed segments, such as those in Southeast False Creek and along the north shore of False Creek, have been designed to separate users and accommodate a much higher volume of users. The Vancouver Park Board recently approved the Stanley Park Cycling Plan, which identifies a range of potential improvements for the Seawall in Stanley Park to reduce conflicts between users.

NEXT STEPS

The City will work with the Park Board, private developers, and other partners to deliver the improvements and ensure a consistent, integrated system around False Creek. A first step will be to assess how the Seawall is currently being used, and identify existing and future issues of capacity, quality, comfort, accessibility, and conflict.

Potential improvements could include extending and realigning the Seawall to widen and separate cycling and walking paths, provide safer crossings and improved separation from motor vehicle traffic, and upgrade parallel "bypass" cycling routes. We will also develop a long-term investment strategy for Seawall improvements.

PUBLIC COMMENT

"Since the separated routes were built, biking has become a part of my daily routine."

—public engagement participant

RELATED TRANSPORTATION 2040 POLICIES

W1.2 Provide generous, unobstructed sidewalks on all streets

W1.3 Make streets accessible for all people

W1.7 Make the city easy to navigate on foot

W2.2 Create public plazas and gathering spaces throughout the city

C1.1 Build cycling routes that feel comfortable for people of all ages and abilities

C1.4 Make the cycling network easy to navigate

VIBRANT PUBLIC SPACES

GOAL FOR PEOPLE:
Create places for people to socialize

OBJECTIVE

Vibrant public spaces encourage a culture of walking and cycling, and increase opportunities for commerce and social interaction. This plan supports programs that encourage creative uses of the street, including temporary and permanent public spaces created by reallocating street space.

STUDIES OR ACTIONS COMPLETED

To date, the City has implemented public space within street rights-of-way on a temporary basis to accommodate street festivals and other public events. The Vancouver 2010 Olympic Winter Games was the City's largest endeavour to turn over our streets to people on foot. Pedestrian streets were embraced by locals and visitors and proved to be one of the most enduring legacies of the Games.

Since that time, temporary summertime closures of several streets, including portions of Granville and Robson, through the VIVA Vancouver program have been very successful. Council has given direction to explore more permanent options for Robson Square as part of a larger public space program.

Parklets are small, modular sidewalk extensions that transform on-street parking to places for people to sit, relax, and enjoy the city. Parklets often have additional benefits such as addressing sidewalk pinch points by adding more space for people to walk. Vancouver has several successful parklets that have been piloted through the VIVA Vancouver program, including Parallel Park on 14th Avenue at Main Street, Urban Pasture on 1000-block Robson Street, and Hot Tubs on East 44th Avenue at Fraser Street.

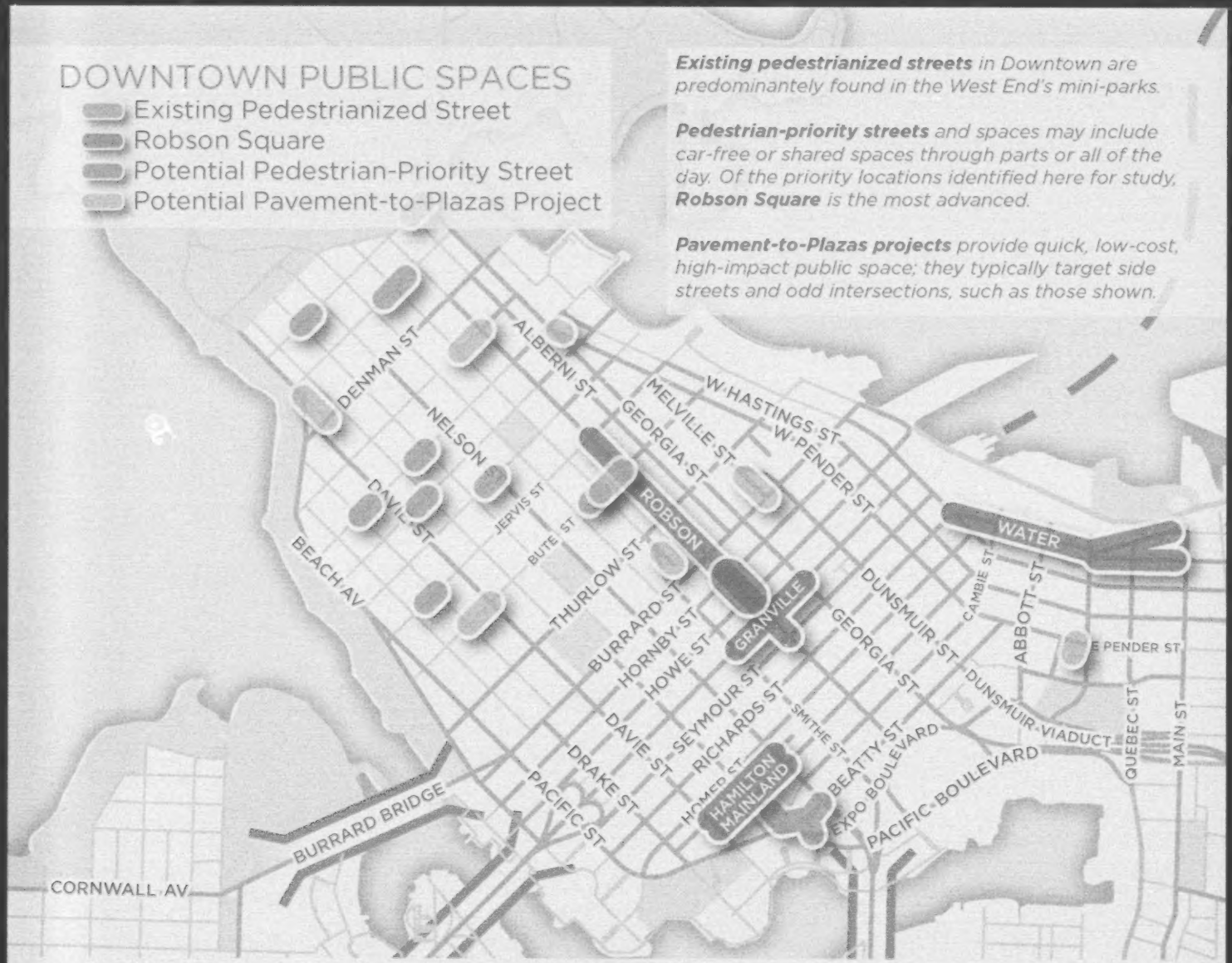
NEXT STEPS

The City is currently exploring options to make Robson Square a permanent pedestrian-priority space. We are consulting with the public and stakeholders, and carefully considering the needs of all users, including people who cycle and use transit, as well as service and delivery providers.

Other candidates for pedestrian-priority streets include Mainland in Yaletown, Water Street in Gastown, and Robson Street in the Downtown and West End. Each has unique challenges to be addressed regarding loading and deliveries, transit and tourist buses, motorized and bicycle traffic and parking, and historic character. In the near term, these locations may be tested through VIVA Vancouver initiatives. Long-term plans will require future study and consultation.

We are building on the success of our parklet pilots by developing a simple application-based approach that will allow and encourage private sponsors to build parklets throughout the city. We are also exploring how to transform some lesser-used streets into plazas for low cost, which may evolve into a more formal Pavement to Plazas program. Potential locations are being identified through community planning processes.

Some potential projects, subject to further study and consultation, are highlighted on the following map. Locations elsewhere in the city will also be considered, especially those based on resident and business proposals.



RELATED TRANSPORTATION 2040 POLICIES

- W1.2 Provide generous, unobstructed sidewalks on all streets
- W2.1 Enable and encourage creative uses of the street
- W2.2 Create public plazas and gathering spaces throughout the city
- M2.5 Design parking to be flexible and adaptable
- G2.2 Provide for efficient loading and unloading

WIDER SIDEWALKS IN COMMERCIAL AREAS AND NEAR TRANSIT

GOAL FOR PEOPLE:
Provide more space for more people

OBJECTIVE

Sidewalks can get very crowded in busy commercial areas, near transit stations and other major destinations, and at pinch points. Providing generous, unobstructed sidewalk space supports more walking and street activity, and helps ensure people with mobility aids can get around.

STUDIES OR ACTIONS COMPLETED

To date, wider sidewalks have been achieved in some commercial areas and near transit, primarily through redevelopment projects where greater setbacks between the street and new buildings have been required.

NEXT STEPS

Many streets throughout the city need wider sidewalks. To prioritize these locations, we must first develop pedestrian guidelines for different types of streets. Guidelines will define minimum and desired sidewalk clear-zone widths, accessibility features, surface treatments, and furniture placement. Several different approaches can be used to complete these projects—from enforcing bylaws that maintain clear sidewalks, to reallocating road space or requiring setbacks in new development.

RELATED TRANSPORTATION 2040 POLICIES

- L1.1 Prioritize and encourage a dense and diverse mix of services, amenities, jobs, and housing types in areas well served by frequent, high-capacity transit
- L1.2 Locate major trip generators near rapid transit stations or along transit corridors
- L1.3 Design buildings to contribute to a public realm that feels interesting and safe
- W1.1 Make streets safer for walking
- W1.2 Provide generous, unobstructed sidewalks on all streets
- W1.3 Make streets accessible for all people
- W1.5 Address gaps in the pedestrian network
- W1.6 Provide a blueprint for great pedestrian realm design
- W2.2 Create public plazas and gathering spaces throughout the city
- C2.1 Provide abundant and convenient bicycle parking and end-of-trip facilities
- C3.1 Make it easy to combine cycling with other forms of transportation
- T2.2 Provide easy connections and comfortable waiting areas throughout the network

SIDEWALK WIDTH PRIORITIES
Rapid Transit Station Areas
Future Rapid Transit Corridors
Commercial/Shopping Streets
Downtown Peninsula
NW MARINE DRIVE
POINT GREY ROAD
CORNWALL AV
BURRARD BRIDGE
BURRARD ST
ALMA ST
W 4TH AV
W 10TH AV
W 16TH AV
MACDONALD ST
DUNBAR ST
ARBUTUS ST
W BROADWAY
W 12TH AV
W 16TH AV
W KING EDWARD AV
W 41ST AV
W 49TH AV
SW MARINE DRIVE
PARK DRIVE
W 70TH AV
GRANVILLE ST
OAK ST
CAMBIE ST
MAIN ST
FRASER ST
KNIGHT ST
VICTORIA DRIVE
KEEFER ST
E KENT AV SOUTH
E KENT AV NORTH
SE MARINE DRIVE
MARINE WAY
E 64TH AV
E 49TH AV
E 41ST AV
E 33RD AV
KINGSWAY
JOYCE ST
EARLES ST
E 16TH AV
E BROADWAY
E 12TH AV
GRANDVIEW HIGHWAY
E 1ST AV
PRIOR ST
VENABLES ST
TERMINAL AV
POWELL ST
E HASTINGS ST
MCGILL ST
BOUNDARY ROAD
RUPERT ST
RENFREW ST
NANAIMO ST
CLARK DRIVE
COMMERCIAL DRIVE
CAMBIE BRIDGE
W 2ND AV
W 6TH AV
QUEBEC ST
ABBOTT ST
GRANVILLE ST
BURRARD ST
HOWE ST
DAVIE ST
NELSON ST
ROBSON ST
W GEORGIA ST
W PENDER ST
DENMAN ST
BEACH AV

ACKNOWLEDGEMENTS

The Transportation 2040 team would like to thank members of the Internal Stakeholder Advisory Group and External Stakeholder Advisory Group for their ongoing commitment and diligence throughout the plan development. The groups had representatives from:

City departments and organizations:
Engineering, Planning & Development Services, Communications, Social Planning, Sustainability, Police, Fire & Rescue Services, Emergency Management, Parks & Recreation, and Public Library

Council-appointed citizen committees:
Active Transportation Policy Council, Persons with Disabilities Advisory Committee, Seniors' Advisory Committee, Vancouver City Planning Commission, and Women's Advisory Committee

Other government agencies and authorities:
BC Ministry of Transportation & Infrastructure, Insurance Corporation of British Columbia, Metro Vancouver and Lower Mainland municipalities, Port Metro Vancouver, TransLink, Vancouver Airport Authority, Vancouver Coastal Health, and Vancouver School Board

External organizations:
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The Transportation 2040 team would also like to thank the international peer review panel who reviewed the draft directions and whose constructive feedback helped shape the final plan:

Peter McCue — Executive Director, Premier's Council for Active Living, New South Wales, Sydney

Eric Miller — Professor of Civil Engineering, University of Toronto

Tom Miller — Director of Transportation, City of Portland

Anthony Perl — Director and Professor of Urban Studies, SFU

Donald Shoup — Professor of Urban Planning, UCLA

Niels Tørsløv — Director of Traffic Department, City of Copenhagen

Jarrett Walker — Transit Consultant and Author

Glen Weisbrod — President, Economic Development Research Group, Boston

Finally, the team would like to thank the thousands of residents, businesses, and community groups whose voices helped shape the plan.

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